Hospital Library

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment and Administration of Hospitals, Sanatoriums and Allied Institutions, and to Their Medical, Surgical and Nursing Services

Vol. XXVIII *February 1927* No. 2

The Modern Hospital Reading Course: Lesson Two

HOW TO INCORPORATE A HOSPITAL

Legal Aspects—Constitution—Tax Exemption—Liabilities

By Edgar Charles Hayhow, B.C.S., Superintendent, New Rochelle Hospital,
New Rochelle, N. Y.

THE purpose of this paper is to present as clearly as possible the more important legal aspects of hospital management. An attempt will be made to point out the legal problems pertaining to medicine, economics, finance, institution management and other types of efforts that are included in the duties of hospital executives.

A superintendent cannot, simply by virtue of his office, be a physician, a business man, a sociologist, an accountant and an attorney. He is, nevertheless, responsible for the physical management of the institution and for compliance with the laws applicable to its work. Permissions for operations and autopsies, liability for torts and contracts and trust fund problems are everyday questions. Lack of knowledge of these matters on the part of the superintendent can involve the institution in litigations and financial difficulties and may engender unfortunate public opinion. The superintendent must thoroughly understand the routine problems and must know enough about hospital law to recognize which problems are beyond his ability to solve and should be referred to the legal adviser of the institution.

Modern business enterprises can best be classified, on the basis of legal relations, into (1) natural persons; (2) partnerships; (3) joint adventures; (4) joint stock companies; (5) corporations and (6) Massachusetts Trusts (Ref. 1).

A hospital may be formed and operated under any of these forms of management, with the possible exception of Nos. 3 and 6. In accordance with state laws they may assume as limited an enterprise or involve as elaborate a scope as their organization or charters may specify.

1. *Natural Persons*: As a sole proprietor, an individual may commence business without the formality of legal documents, procedures of organization or private taxation. Capital invested in the business need not be specified and the sole proprietor is unlimitedly liable (including his most personal property) for all the debts of his business.

Legal Definition of Partnership

2. *Partnership*: A partnership is a contractual association of two or more persons in a common endeavor, created usually under an agreement as to the affairs of the business, the amount of funds invested and distribution as to profits and losses; dissolved automatically upon the death or mental condition of any one of the partners or bankruptcy of the partnership. Liability of partners is unlimited and in the case of a contracted debt by one partner, the individual assets of all the partners are liable. One can readily see that this form of business may be satisfactory and not subject to legal measures of incorporation.

3. *Limited Partnership*: This form of management, not especially popular, is created under special statute and provides for special partners as well as general partners, the special partners' liability to be fixed at amounts not to exceed original capital invested by them, with no authority in the management of the business affairs, but on condition that at least one general partner

will have unlimited liability for all debts of the business.

4. *Joint Stock Company*: "This form of management has the organization of a corporation, that is, members elect directors who elect officers. The members are not general agents of the business but have the joint and several liabilities of partners. Because of continuous life, it may issue a long term note and bonds, impossible to partnership." (Gerstenburg)

5. *Corporation*: "An artificial person, created by law, or under the authority of law, from a group or succession of natural persons, and having a continuous existence, irrespective of that of its members, and powers and liabilities different from those of its members." (*Century Dictionary*, Vol. II)

The advantages of partnership are: (1) Its non-requirement of submitting to detailed financial and organization reports; (2) elimination of payment of numerous state and federal taxes; (3) personal element of management without corporate stockholders or members.

Incorporation has the following advantages: (1) Its limitation of stockholders' liabilities to definite amounts; (2) its distinct legal entity for all business purposes; (3) the stability and permanence of the organization; (4) the representation of the different interests in the corporation and its property by transferable shares; (5) the management of the business by an elected board of directors, acting through officers and agents; (6) the greater ease of securing capital under the corporate form because of its safeguards and advantages. (Ref. 2)

Procedures of Incorporation

It is not within the province of this paper to compare in detail the state statutes concerning incorporation. The essentials of all charters are comparable in that they must contain the corporate name of the institution, the purpose for which it is formed, the names and addresses of the original incorporators, the address of the principal place of business, details as to fees, places for filing, and registration of certificate.

As a model for a certificate of incorporation, the requirements of the New York State Membership Corporation Law are here submitted: (This and other references to New York laws are given because the writer is more familiar with the laws of that particular state).

"Five or more persons may become a corporation for the purpose of erecting, establishing or maintaining a hospital, infirmary, dispensary, or home for invalids, aged or indigent persons by making, acknowledging and filing a certificate, stating the particular object for which the corporation is to be formed; the name of the proposed corporation; the town, village or city in which its principal office is to be located; the number of directors, not less than three or more than forty-eight; the names and places of residence of the persons to be its directors until its first annual meeting; and the time for holding its annual meeting.

"Such certificate may also specify the qualification of members of the corporation with respect to their adherence or non-adherence to a particular school or theory of medical or surgical treatment, and the systems of medical practice or treatment to be used or applied in such hospitals, infirmaries, dispensaries or homes. Such certificate shall not be filed without the written approval endorsed thereupon, or annexed thereto, of the State Board of Charities and of a justice of the Supreme Court of the district in which the principal office or place of business of such corporation shall be located.

"On filing such certificate, in pursuance of the law, the signers thereof, their associates, and successors, shall be a corporation in accordance with the provisions of such certificate." (Ref. 3)

A suggested form explaining this as recommended in New York State is as follows:

SUGGESTIONS FOR FORMS (Ref. 4)

I

CERTIFICATE OF INCORPORATION

(*Fee for filing with Secretary of State, $30. For fees of County Clerk, see Civil Practice Act*, sec. 1554.)

CERTIFICATE OF INCORPORATION of (*fill in with name of the corporation*) pursuant to the Membership Corporations Law.

WE, THE UNDERSIGNED, desiring to form a corporation pursuant to the provisions of the Membership Corporations Law, do make, subscribe, acknowledge and file this certificate.

FIRST: The name of the corporation is (*fill in with name of the corporation*).

SECOND: The purpose (*or purposes*) for which it is formed is (*are*) as follows: (*insert statement of objects*).

THIRD: The territory in which its operations are principally to be conducted is (*insert*).

FOURTH: Its office is to be located in the city of ....., (*or, in the town of, or in the village of, as the case may be*) in the county of ....., State of New York.

FIFTH: The number of its directors is to be (*state exact number, not less than three.*)

SIXTH: The names and residences of the directors until the first annual meeting (*and if any such director shall reside in a city, the street and number, or other particular description of his residence must be given; the number of directors named must be the number stated in the preceding paragraph*) are as follows:

Names	Residences
.....	.....
.....	.....
.....	.....

SEVENTH: All of the subscribers to this certificate are of full age; at least two-thirds of them are citizens of the United States, and at least one of them is a resident of the State of New York. Of the persons named as directors at least one is a citizen of the United States and a resident of the State of New York.

IN WITNESS WHEREOF, we have made, signed and acknowledged this certificate in duplicate, this..... day of .....in the year 19....

(Here follow signatures of incorporators; at least five persons who may or may not be of the number enumerated in paragraph "Sixth" must sign the certificate at this place.)

STATE OF NEW YORK, } ss.:
County of ..... }

On this .....day of .....before me personally came *(insert names of those signing the foregoing certificate)* to me known and known to me to be the same persons described in and who executed the foregoing certificate and they severally duly acknowledged to me that they executed the same.

.....
Notary Public.

STATE OF NEW YORK, } ss.:
County of ..... }

....., being duly sworn deposes and says: that he is the attorney for the incorporators *(or that he is one of the incorporators)*; that he is personally acquainted with each of the incorporators who signed the foregoing certificate; that each of the incorporators is over the age of twenty-one years; that each of the incorporators *(or state by name which ones)* are citizens of the United States; that each of the incorporators *(or state by names which ones)* is a resident of the State of New York; that each of the persons *(or state by name which ones)* named in the certificate as directors to serve until the first annual meeting is a citizen of the United States and a resident of the State of New York; that no previous application for incorporation has been made *(or if previous application has been made, state the circumstances)*.

.....

Subscribed and sworn to before me,
this .....day of.....

.....,
Notary Public.

THE UNDERSIGNED Justice of the Supreme Court of the .....Judicial District in which the office of the corporation is to be located approves of the foregoing certificate of incorporation of *(fill in with corporate name)*.

.....

The certificate must be endorsed:

CERTIFICATE OF INCORPORATION of *(fill in with name of the corporation)* pursuant to the Membership Corporations Law.

A membership corporation, created by or under a general or special law, may have a constitution, by-laws, and rules, which shall be collectively known as "By-Laws," and may provide methods for the amendment and repeal thereof.

Constitution

A constitution is a written evidence specifically embodying the principles, policies, rights, and privileges of incorporation as designated under any state code of corporation.

It is usually divided into a series of articles, sections, and paragraphs, each article definitely relating to a specified classification as: (Ref. 5)

Article I.—Name of Corporation.

Article II.—Object. The object is to maintain and operate a hospital for the purpose of affording surgical and medical care, to any color, creed, or nationality, excepting such cases as chronic and contagious diseases, alcoholic and insanity cases.

Article III.—Membership. Provides for classifying of memberships contributing varying amounts and establishes classes for life, sustaining, contributing and honorary members.

Article IV.—Property. Gives special reference to the acquisition of funds and ownership of real property.

Article V.—Annual meetings.

Order of business:

Report of the president.
Report of the treasurer.
Report of the president of the medical board.
Report of the standing committees.
Report of special committees.
Report of superintendent.
Report of women's auxiliary.
Report of junior auxiliary.
Unfinished business.
New business.
Elections.

Article VI.—Government. Provides for election of officers and how officers shall be elected. The government of the affairs, funds, and properties of the association and its right to appoint agents and professional staffs is outlined.

Article VII.—Endowments.

Article VIII.—Amendments.

General classification of the by-laws is as follows:

1. Officers and their duties.
2. Meeting of the directors.
3. Quorum.
4. Standing committees.
5. Duties of committees.
6. Auxiliary committees or boards.
7. Professional staffs.
8. Endowed beds.
9. Order of business.
10. Changes in by-laws.

Throughout the country today the accepted form of the private hospital, as distinguished from the municipal hospital, is incorporated under the jurisdiction of state charters. The legislatures of the states sanction the physical creation of the institution and according to their individual laws definitely provide for the proper care of patients, for proper sanitation and for proper control of laboratories, dispensaries, and pharmacies. There is no one specific law containing the statutes of all hospital affairs, any more than all corporation matters affected by legal statute can be found in the general corporation law. The more important laws in the individual states containing chapters or sections of hospital significance can be grouped as the general municipal law, the membership corporation law, the law of charities (poor law), the public health law, the penal laws, and state educational laws.

Corporations are divided into two main classi-

fications—stock and membership—known often as profit and non-profit (eleemosynary) corporations. Inasmuch as the majority of hospitals are membership corporations, when the term corporation is used, an eleemosynary corporation is implied, that is, one depending, at least in part, upon income from charitable sources.

A New York State ruling on this question is rather atypical: "If a corporation were formed for the mere purpose of maintaining a sanitarium to which persons could repair for rest and hygienic treatment and which would not, in fact, practice medicine within the meaning of the decision, it could be organized under the business corporation law.

"On the other hand it would seem that if the corporation desires to conduct a hospital and to practice medicine in the sense of furnishing medical and surgical treatment to its patients, it must be formed under the membership corporation law, in which event its members would not be allowed to make a profit from the enterprise." (Opinion of attorney general, New York, April 21, 1909). (Ref. No. 6)

What is a Private Hospital?

There is apparently no little confusion in the minds of many as to what constitutes a private hospital, a charitable hospital and a public hospital. What are the private hospitals' obligations as to rendering charitable care if public support has been given through financial campaigns, membership funds or municipal appropriations?

Credit must be given here to the excellent volume, *Hospital Law*, by Lapp and Ketcham. Their definition is, briefly: "There are two generally accepted classifications of hospitals, public and private. A public hospital is a municipal institution, under the immediate direction and control of federal, state, county, city or township management. Therefore, any hospital, under political control, whether it accept free cases or charge for services rendered, is a public hospital. *In contra*: All institutions under private management, whether they accept municipal appropriations or not, whether the citizens through taxation or otherwise contribute to their support, are private hospitals and are not to be confused with public institutions.

"An institution that is established, maintained and operated for the purpose of taking care of the sick, without profit, or view to profit, but at a loss, which has to be made up by benevolent contribution, is a charity. If in addition to this, the institution is one, the benefits of which the public are generally entitled to enjoy, it is then a purely public charity—public because although not owned by the public, its use and objects are public; purely public because its uses and objects are wholly public, and for the benefit of the public generally and in no sense private as being limited to private individuals." (Ref. 7)

Therefore, a hospital, private in nature may be termed a charitable institution, may charge any amount for service rendered and at the same time accept income from outside sources, bequests, gifts, and other appropriations. "The criterion in this class of case seems to be that whatever is done or given gratuitously in the relief of public burdens or for the advance of the public good is a public charity." (Ref. 8)

What laws are instituted governing the inspection, sanitation, and control of medical activities of these public and private hospitals? Each one of these functions (inspections, sanitation, etc.), are separate and distinct and must be treated separately. The matter of sanitation, including disposal of garbage, removal of remains and proper incineration, are affairs of public sanitation, and in the case of failure to carry out the usual requirements and procedures the hospitals are classified as "Sanitary Nuisances." Registration of births and deaths and the reporting of communicable diseases are affairs of vital statistics. These matters are usually under the immediate supervision of state board of health or health commissioner.

In New York State all hospitals accepting state, city, town, or county patients, whose bills are paid through taxation, are subject to inspection by the State Board of Charities, only so far as the physical care of the patient is concerned for quality of food served, clothing, suitability of buildings, proper housing, etc. The state boards of charities (or similarly functioning groups) exercise this same power in many of the states, not all states, however, being restricted from inspections as to whether or not they receive public monies.

Redress of Patient

The question might easily arise in New York State and other states as to what redress a patient would have for gross neglect of proper physical care in a hospital not accepting public monies from any source. An answer to this is that inspection may be made by the state board of charities, if written charges are submitted concerning the institution, and the members of the state board of charities in turn, feel the complaint warrants a special investigation. A patient physically abused by a member of a hospital staff has redress through the district attorney of the county through court procedures.

The subject of taxation is exhaustive and one

that in its many ramifications could not possibly be treated in a paper of this kind.

As a general rule statutes provide for the exemption of property used for charitable, educational, or religious purposes, the method and extent varying in different states. However, in general, exemption from a general property tax does not by necessity exempt corporations from paying inheritance, license, or corporation taxes. This is an extremely important detail and when questions of this nature arise expert legal advice should be sought and followed. Lapp and Ketcham's "Hospital Law" discusses excellently this entire field and their chapters are recommended.

Security of Endowments

It is presupposed that a private hospital maintained for the care of sick, at a loss, must receive financial assistance from outside to meet its obligations. In view of this, laws provide that institutions may receive: (1) Monies appropriated through municipal aid and public subsidy. (2) Gifts, grants, bequests, according to specific terms of trust, further providing that the proper use and care of the funds is the duty of the directors or trustees of the institution.

It must be remembered that endowment funds are trust funds and must be used exactly in accordance with the wish of the donor as determined in the gift or bequest. The writer is familiar with one institution that must keep a specially bound ledger of hundreds of accounts of "Endowments for Specific Purposes." It is debatable whether good management would recommend "tying up" of too many funds with too detailed specifications. The endowed hospital may become "lopsided" because income from endowment funds cannot be used to the best advantage. Also, the policies of institutions change; practices of medicine recognized today are obsolete tomorrow, and often, in the course of time, the original intent of the donor loses its significance and value.

Many states have empowered municipal authorities to appropriate endowment or public subsidy to an institution for specific care of indigent cases, for further extensions or for ambulance service.

State statutes definitely prescribe what are and what are not proper investments for hospital endowment funds. Suffice it to say, every possible security and safety must be maintained, as the trust is given in good faith for good purposes. Mishandling of endowment funds will discourage bequests.

Thought should be given to the relatively new idea of community trusts. The community trust is controlled by a board for which a safe plan of perpetuation of a proper membership is worked out. A donor may place a sum in the hands of the "trust," with designation of a particular use, as long as such use is for the good of the public. As needs change, however, the "trust" may make different use of the gift, if such a procedure seems wise.

Hospital records are one of the most important of institutional details. Without a record of performance we should have little opportunity of establishing precedents or procedures. In all states, varying statutes demand the registering of patients, and require definite statistical information to be kept as permanent records. Births, deaths and communicable diseases must be recorded and reported to boards of health or other authorized groups. Hospital experience has also taught the extreme importance of keeping detailed medical records regarding every patient. These are valuable to the patient, and, for research and statistical data, to the public generally. Again the writer calls attention to *Hospital Law,* in which detailed information concerning the record laws of individual states is given. (Ref. 8)

Another important function of records is for use as evidence in court proceedings. Must hospitals supply insurance companies, attorneys, and other interested parties with records of patients' hospital care? A general and important rule is that hospital records are private and must not be divulged without the written consent of the patient. When a patient enters a hospital he can assume that personal information concerning his condition is kept with professional secrecy.

Many states differ as to the admissibility or inadmissibility of records in court procedures, but it rests as a definite practice that hospitals need not submit their records as evidence or othewise without proper subpoena from a court.

Workmen's Compensation Laws

In the past few years a new development of hospital practice has come about because of the treat- of workmen's compensation insurance cases.

Every state has now a law affecting employees injured in line of duty, and provides for some form of insurance, to be met by the employer, for paying for medical care and hospitalization.

The exact interpretations of the statutes differ in every state, the period of disability allowed, the financial payment for services and the extent of compensation for various injuries.

As adjustments concerning workmen's compensation cases between the state, the employer, insurance carriers, and hospitals are administrative problems and not legal ones, they will not be discussed here but the reader should make him-

self thoroughly conversant with the workmen's compensation laws in his own state.

A complete survey of the state law as applied, interpreted and administered in New York State, can be found in THE MODERN HOSPITAL, July 1926, Volume XXVII. (Ref. 9)

Autopsies

The performance of an autopsy without proper consent by the next of kin is a misdemeanor, and both the hospital offering the facility and the physician performing the examination can be held liable for it. Institutions must make every effort to obtain the permission, preferably stating the full nature of the examination, written, properly signed and witnessed, before permitting the autopsy to be done.

Autopsies can be performed in institutions by order of the board of health and coroner to ascertain the cause of death, and full records should be kept in the institution files of all findings.

Much has been written not only in the statutes but in varying forms of articles on the liability of institutions for contracts and torts.

Directors of institutions have the right to appoint their agents and generally speaking, contracts made in good faith by the agents are at once liabilities of the corporation. This is so, irrespective of the type of hospital concerned—private, charity or public.

The question of torts presents an entirely different picture and many laws, decisions and precedents are offered concerning it. The laws of the various states rather clearly define the difference between private and private charitable hospitals. Private hospitals for profit have approximately the same responsibilities under the law as other profit making institutions. Liability of charitable institutions seems to have a somewhat different interpretation. While cases have been decided against such institutions, it is accepted that where due care is used in the selection of its employees or agents, a private charitable hospital conducted for benevolent and philanthropic purposes, is not responsible to a patient for damage received through the unskillfulness or carelessness of servants, attendants or physicians in charge, even if the patient paid for the services given. (Ref. 10)

Hospitals, even if public, are responsible for torts, on the part of employees which affect strangers, even if accident is caused by employee in line of duty. (Ref. 11) Insurance covering various liabilities should be carried by the institution to safeguard accidents of such a nature.

Public hospitals, not maintained for profit, cannot be sued for negligence of their employees.

Physicians who are in general practice and on the staff of the hospital can be held personally rather than the hospital, for malpractice on the grounds that they are not in reality servants of the hospital, that the hospital cannot direct their work, and is, consequently, not responsible for it.

This paper could be elaborated to far greater proportions. The more important questions of legal significance have been presented and the writer suggests careful reading and study on this important phase of hospital work. Books of medical jurisprudence are important; they clearly outline the civil laws applying to medical science, the physician and the patient. Evidence, admissible records, licenses, agreements for operation, civil malpractice, laws affecting insanity, anesthesias, etc., are discussed in such books, and this accurate knowledge is beneficial to the hospital administrator.

A simple review of "business corporations" has been offered and the writer recommends the volumes of Gerstenburg and Conyngton, noted in the references for reading and research.

Legal questions affecting dispensaries, laboratories, and nurses' training schools have not been discussed because of limitation of space. Students interested in special medical and social fields should review the laws applying to those special fields. In New York State special laws have been passed concerning institutions for feeble-minded children and adults, orthopedic hospitals for children, maternity hospitals, incipient tuberculosis hospitals, juvenile delinquency institutions, reformatories for women, homes for aged, decrepit and mentally enfeebled persons, inebriates, and shelters. (Ref. 11)

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2. Conyngton, Thomas—"Corporate Organization and Management", Chapter I, Page 4.
3. New York State Membership Corporation Law, Chapter 35, Para. No. 130.
4. New York State Pamphlet (above), Page 48 and 49.
5. Weber, J. J., First Steps in Organizing a Hospital, Page 145. Published by the Macmillan Company, New York.
6. New York—State Board of Charities Pamphlet, "Formation of Corporations for Charitable Purposes", Page 43.
7. Lapp and Ketcham, Hospital Law, Page 26, Para. 2. Published by the Bruce Publishing Company, Milwaukee, Wis.
8. Lapp and Ketcham, Hospital Law, Page 28, Para. 13.
9. Hayhow, E. C.—"Workmen's Compensation Law in New York State" THE MODERN HOSPITAL, August 1926, Volume 27.
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11. Cahill's "Consolidated Laws of New York", Chapter 56.

NAVAL HOSPITAL REPORT

The annual report of the Surgeon-General of the U. S. Navy, for the fiscal year of 1926, states that there were 847,865 days of treatment in naval hospitals. This figure indicates that 2 per cent of the personnel were constantly under treatment in hospitals and that there was an average of seven hospital days for all persons in the Navy. Of all sick days, 70 per cent were hospital days.

The spacious lobby is of the modern hotel type.

FLEXIBILITY IS KEYNOTE OF NEW AUGUSTANA HOSPITAL

By Meyer J. Sturm, Architect,
Evanston, Ill.

SOMEWHAT over thirty years ago there was established on the north side of Chicago by the Deaconess Association, what was known as the Deaconess Institution of the Evangelical Lutheran Church, called the Augustana Hospital. It started with a small three-story frame building on Lincoln Avenue. Some years later the institution took a tremendous forward step and put up a six-story fireproof building.

Subsequently this was enlarged into what was known for many years as the Augustana Hospital. However, this building was quickly outgrown and about ten years ago it was decided to build an entirely new institution. With this in view a tract of land, which had been used for an old brewery, was purchased, at the corner of Garfield Avenue and Sedgwick Street.

About seven years ago tentative drawings were made for an institution on these grounds. Nothing further was done with this, however, owing to the period of depression immediately following the War, but about four or five years ago a modern nurses' home was erected at the west end of the new site.

In January, 1925, after mature consideration, it was decided that the new Augustana would be erected, or at least the so-called east wing and administration building, leaving the west wing or ward pavilion until a later date when the demand would make it possible to build this other wing. It is the purpose of this article to describe in word and picture the east wing and the central or administration pavilion.

In the study of the design for this hospital, there was taken into consideration the fact that the ultimate capacity should be somewhere between six and seven hundred beds, with a potential capacity of probably one hundred to one hundred fifty beds more, and that there would have to be provision for a maximum of service with a minimum of maintenance cost.

In order to do this and to keep the building

Exterior showing the main entrance to the building.

operation within consistent limits, the unique administration building, which will serve the entire group without change when the west wing is completed, was given more than ordinary consideration. In fact, the arrangement of the operating department and its entire equipment is such that it is a self-expansive unit. This is true of the entire administration building. Moreover, it was decided that in such an arrangement there would be the advantage of having all administrative and operative work of the hospital in a separate building, in effect, but really a part of and integral with the patient wings. This would leave the wings solely for patients except in the basement and on the ground floor, where there are certain departments used in general for the entire institution. In other words, the entire ground floor of the administration building and of the wings would contain primarily administrative and utility departments.

It might be well to state first that the hospital is equipped with the several systems that go to minimize steps and to make the entire institution efficient. There is a central clock system so that the time throughout the hospital is synchronized exactly. Then there is an adequate doctors' call system and nurses' call system, the latter so arranged that the supervising nurses may know at any time from which floor a call comes, irrespective of the floor upon which the call is being made.

Electrical equipment is provided for a maximum of service when and if required, and while the cooking apparatus as a whole is operated partially by steam and partially by electricity, provision is made for a complete electrification if it is desired. So far as possible in the arrangement of the service, provision is made so that a complete service can be obtained in either one manner or the other for a period of time.

The sterilizing equipment is operated entirely by steam, as this was thought advisable under the existing mechanical arrangement and plant capacity. Each floor of the hospital is equipped independently of the operating department for complete sterilization except package supplies. In the arrangement and selection of such equipment, the primary thought was economy of time, and the minimizing of the amount of work necessary and of the help required to do this work. In the same manner and with the same purpose, separate dish-washing machines were put on each floor in addition to the main batteries.

The buildings are heated by a vacuum steam system which is taken through reducing valves from the main boiler plant where a constant pressure of seventy-five pounds is maintained.

Through pressure reducing valves the proper pressures are maintained for the sterilizing, for the cooking and for such other portions of the work as are done by steam.

The power house is equipped with two 250 horse power boilers, with provision for a third unit for the future building. In this part of the building is also the refrigerating machinery, electric transformer rooms and the duplicate pumping machinery for the domestic water system, ice water circulating system, and a full complement of pumps and machines for the work required. Here also are the central switchboards and distribution panels for the entire electrical equipment.

There are three drinking fountains on each floor in the corridors of the east wing and two in each corridor of the administration building, supplied with circulating ice water. There is, in addition, a faucet in each diet kitchen, in the dining rooms, and in other rooms where drinking water is required in quantities on this system.

The basement of the building is used primarily as a pipe space although it is over eight feet in height, and provides large storage space both in refrigerators and in the portions set aside for equipment and every kind of quantity supplies. This is well lighted and ventilated through area ways, in addition to being ventilated in some parts on the ventilating systems.

All of the ventilating fans in the building are at the top of the buildings in separate rooms set aside for this purpose in the pent houses, and are insulated so that there is no noise or hum in the system. The east wing has two separate fans and the administration building has three fans. The ventilation in the toilet rooms is separate from that of the other ventilation. That in the diet kitchens and main kitchens is separated also, all systems being of the exhaust type so that it is impossible for odors to get into spaces outside of those in which they originate. In a broad way, this describes the mechanical system.

Ground Floor a Utility Floor

The ground floor, which is practically at the level of the sidewalk is, as stated, a utility floor entirely. In the east wing there is a comprehensive x-ray department which has been worked out with the most minute care. This is directly off an entrance at grade, so that outside patients may come in to this department without going through any other part of the hospital. In close proximity to this grade entrance is the isolation department required by law. The emergency department and ambulance entrance are in the court, which is paved with wood blocks and is thus quiet and secluded.

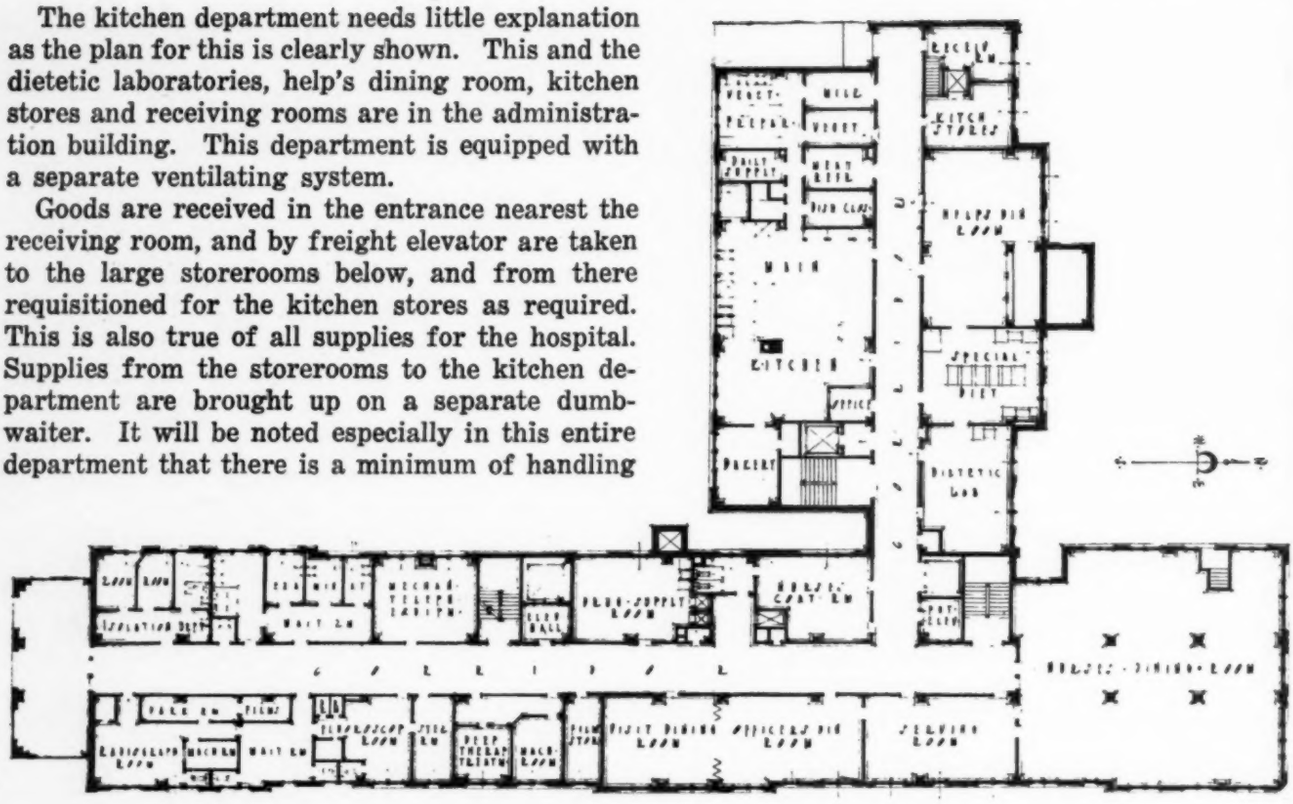
The telephone system for the building is an automatic dialing type connected to the outside phones in the same manner, and an especially planned room is used for the apparatus for the system.

The remainder of this floor is given over to rooms as designated, but special attention is called to the nurses' dining room, lighted from three sides and one of the most cheerful rooms in the building. It is to be noted that the serving room for the dining rooms is in close proximity to the main kitchen, so that food can be taken readily into this serving room. There are officers' and guests' dining rooms served from the same room.

One of the private rooms.

The kitchen department needs little explanation as the plan for this is clearly shown. This and the dietetic laboratories, help's dining room, kitchen stores and receiving rooms are in the administration building. This department is equipped with a separate ventilating system.

Goods are received in the entrance nearest the receiving room, and by freight elevator are taken to the large storerooms below, and from there requisitioned for the kitchen stores as required. This is also true of all supplies for the hospital. Supplies from the storerooms to the kitchen department are brought up on a separate dumbwaiter. It will be noted especially in this entire department that there is a minimum of handling



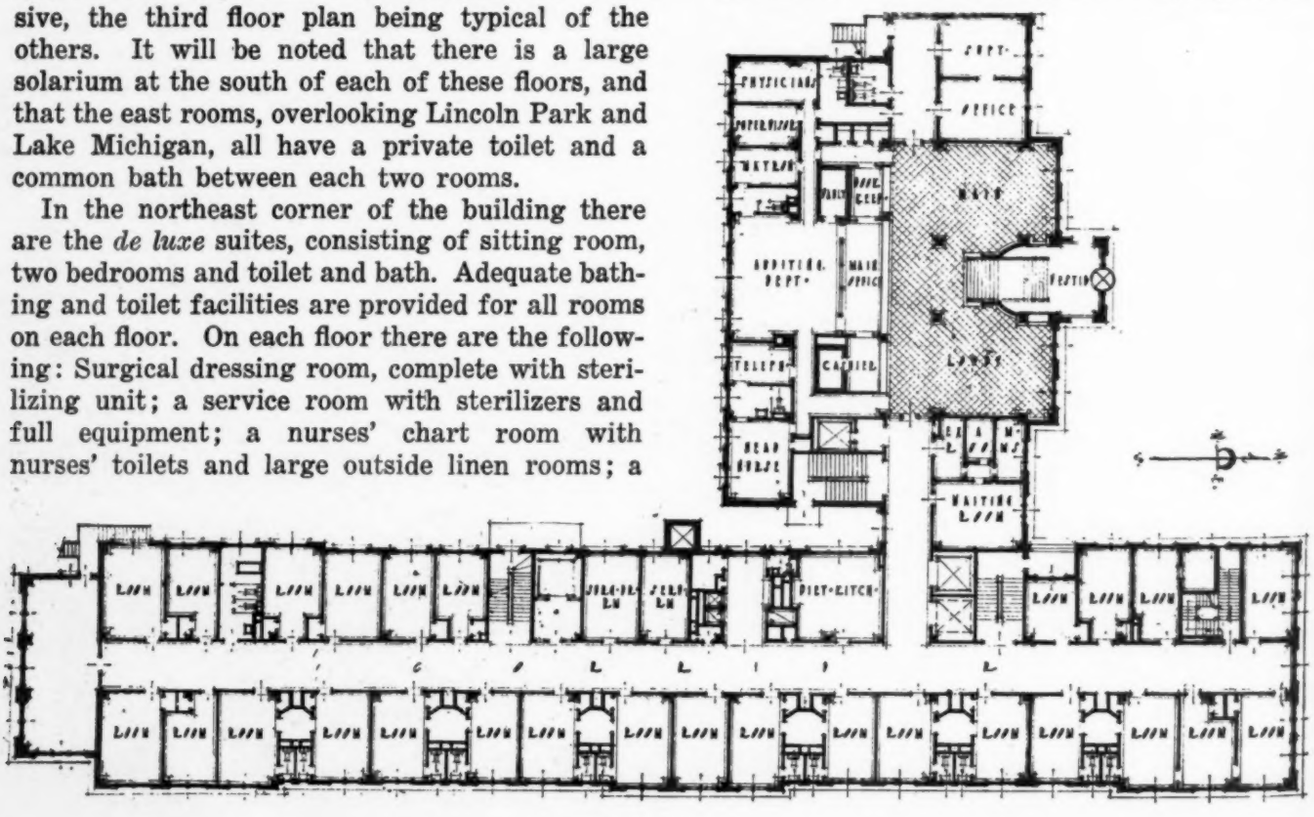
Ground floor plan.

and carrying of stores and supplies, complete circulation within established lines being maintained as an economy in every phase.

In the east wing, above the ground floor, all floors are exactly alike to the seventh floor inclusive, the third floor plan being typical of the others. It will be noted that there is a large solarium at the south of each of these floors, and that the east rooms, overlooking Lincoln Park and Lake Michigan, all have a private toilet and a common bath between each two rooms.

In the northeast corner of the building there are the *de luxe* suites, consisting of sitting room, two bedrooms and toilet and bath. Adequate bathing and toilet facilities are provided for all rooms on each floor. On each floor there are the following: Surgical dressing room, complete with sterilizing unit; a service room with sterilizers and full equipment; a nurses' chart room with nurses' toilets and large outside linen rooms; a diet kitchen with steam table, gas and electric hot plates, milk urns and dish-washing machine. Patients' and visitors' elevators are conveniently placed.

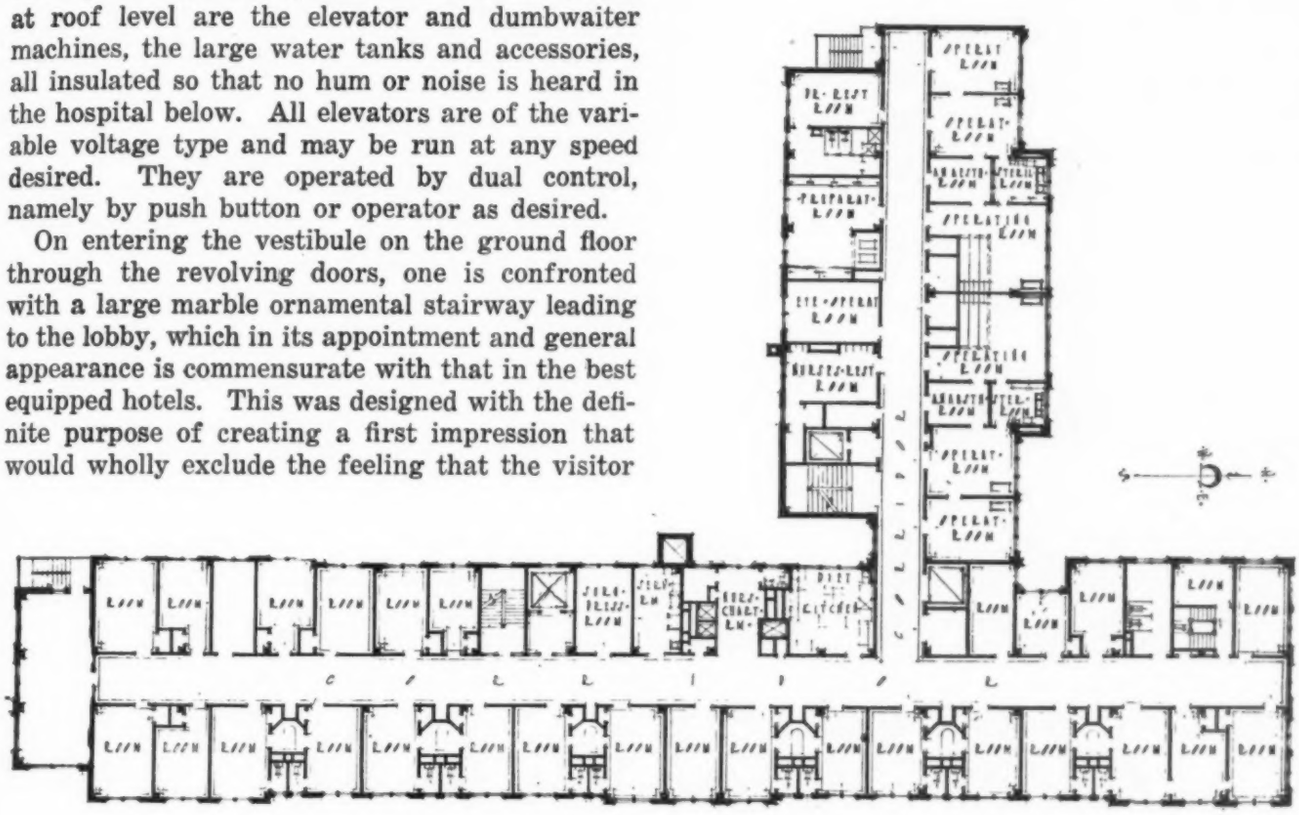
On the roof of this building are lounging rooms



First floor plan.

for men and women, and a service room to which runs the large freight food elevator, so that meals may be served on the beautiful roof garden which extends over the entire wing. This roof overlooks Lincoln Park and Lake Michigan and is beautifully equipped. Two elevators and two stairways run up to this roof garden. Above the rooms at roof level are the elevator and dumbwaiter machines, the large water tanks and accessories, all insulated so that no hum or noise is heard in the hospital below. All elevators are of the variable voltage type and may be run at any speed desired. They are operated by dual control, namely by push button or operator as desired.

On entering the vestibule on the ground floor through the revolving doors, one is confronted with a large marble ornamental stairway leading to the lobby, which in its appointment and general appearance is commensurate with that in the best equipped hotels. This was designed with the definite purpose of creating a first impression that would wholly exclude the feeling that the visitor



Third floor plan.

was coming into a formal impersonal institution.

On approaching the desk or counter at the head of the stairway, with its bronze rails, the visitor is met in the same manner as he would be in a hotel, and when leaving he is sped on his way in similar fashion.

Directly back of the desk screen is the auditing department. On either side and accessible from the main corridor are the nurses', matrons' and supervisors' offices. On the right are the superintendent's offices and on the left is a small private waiting room with small examination rooms. The manual board for the telephone system is directly to the left of the auditing department.

The second floor of this building is given over entirely to the interns. They have their own library or assembly room, a large sleeping porch and rooms that are spacious and homelike. There are baths and toilets between each two interns' rooms, with showers.

The third floor is the operating department and is given over to this purpose entirely. The two large operating rooms in the center each have an amphitheater of about one hundred capacity. These two rooms go through two stories of the building. On either side on the third floor level are the anesthetizing and sterilizing rooms, and on either side of these are more operating rooms.

The wainscots to door height in all the operating rooms on this floor are of green matt glazed tile, the floors are in green mottled rubber, and the woodwork is enameled in a deeper shade of green than the tile. The walls and the ceilings are in a somewhat lighter tone than the tile. The anesthetizing and sterilizing rooms are in white tile, and the corridors in white marble. There are seven major operating rooms on the floor.

The large preparation room has the battery of sterilizers enclosed in a separate ventilated space, only the heads and doors of the sterilizers showing in the room, with the gauges and valves operated from the outside.

The sterilizing equipment for the operating rooms is in the spaces between the several rooms as indicated. In each of these sets of sterilizers there are water sterilizers in addition to the two large batteries on the upper floor, which supply all operating sinks on the third floor by direct flow.

The fourth floor is given over to operating rooms, laboratories and work rooms, and a room for the large water sterilizers.

Visitors to the operating pavilion come up by private stairway or elevator from the main lobby to the fourth floor, into the doctors' recreation room, where they check their clothes, from this room go into the operating amphitheaters. No visitors are on the third or lower level but all come in through the upper or fourth floor level.

The exterior of the building is in pure Gothic; the lower portion in buff Bedford stone and the upper portion in a cream colored brick with cream colored terra cotta to match. All of the ornament was detailed to indicate the use of the building, the large symbolic figured panels especially carrying out this purpose.

The entire woodwork in the building is in birch, stained to a deep walnut, except in the main lobby which is in genuine American walnut. The main lobby has marble wainscots. The floor in this, as well as in the remainder of the building, except in the operating department, is in cloisonné terrazzo, base and borders in all of the spaces being in an Alps green, and the field, except in the main lobby, in white marble with the green and yellow mottlings. In decorating, the same color scheme, except in the main lobby, was kept throughout the building, a sunlight tan on the walls with a ceiling color of a light straw colored cream. The corridors have a deeper chocolate tone on the walls below the cart rails.

It is intended eventually that the entire east wing shall consist of private rooms, except probably the first floor which will be two-bed wards. At present the first four floors are being used for two-bed wards and the remainder of the building for private rooms, but eventually, when the west wing, which will be given over to wards, is erected, the east wing will be used for its intended purpose. In the west wing will be the chapel for the hospital and other working departments as required.

The old hospital is being remodeled to some extent and will be used entirely for obstetrical and pediatric work, there being no provision for such work in the present hospital.

UPHOLDING THE PRIDE OF PATIENTS OF MODERATE MEANS

The problem of providing for the middle-class patient centers to some extent around the personal pride of those who fall in this group, according to Dr. George H. Meeker, dean, Graduate School of Medicine, University of Pennsylvania, Philadelphia, who discussed the problem from the standpoint of the patient at the recent convention of the American Hospital Association. Dr. Meeker said in part: "Middle-class patients are too proud to ask for charity, too proud to endure charity patient contacts and too proud to receive their hospital visitors on the charity plane. Hospitals should neither ignore nor combat this psychology of patients. On the contrary anything, no matter how simple, which hospitals can do to dignify any of their patients of any class is well worth while.

"With this general thought in mind, it is easy to see, for example, that all terms used in hospital work should be carefully examined from this point of view, and old terms tending to humiliate should be discarded for terms involving no loss of dignity to anyone. This is parallel to the substitution of the term 'home' for 'poorhouse;' or 'sanitarium' for 'asylum;' or 'guest' for 'boarder.' Specifically, it is here advocated that the term 'ward' should be replaced by the term 'room.' 'Private' rooms are usually designated only by numbers or letters. This system can just as well be used for the rooms now called 'wards.' Almost any patient would prefer to be known as being in 'Room 101,' rather than in the 'Men's Medical Ward' or the 'Obstetrical Ward.' Different classes of patients may readily be designated by terms involving no use of the words 'ward' or 'public' or 'charity' or 'semi-private' and similar expressions; and involving no wound to the pride of any patient. Thus, use the terms: 'Room' patient. equivalent to 'private room' patient; 'private' patient, equivalent to 'private ward' or 'semi-private ward' patient; 'in-patient,' equivalent to 'ward' or 'public ward' or 'charity' or 'charity ward' patient; 'out-patient,' equivalent to 'dispensary' or 'clinic' or 'ambulant charity' patient; 'diagnostic' patient, equivalent to 'diagnostic clinic' patient. These are the terms generally used by the hospitals of this country.

Insurance for the Middle Class

"When we turn to middle-class patient finances, and to the all important matter of medical care insurance, we find that no such type of insurance is generally available. It is understood to be available in some form in certain foreign countries as a governmental matter; and to have been practiced in a few local instances in this country. It is true that one may purchase disability insurance, but this is a totally different thing from medical care insurance as here intended. Disability insurance provides merely definite sums of money under stated disability circumstances, after the disability emergency. Medical care insurance involves no money payments whatever to the beneficiary. It involves only the provision to the beneficiary of a service consisting of appropriate medical care, if and when needed during the premium period. This type of insurance would seem to be advantageous to people of moderate means.

"It is advocated that appropriate hospitals shall sell insurance for medical care to be provided within their own walls and administered by their own staffs. To the middle-class person local hospital medical care insurance would be quite parallel to much that he includes in his regular domestic budget, for example, his local building loan shares. Both things are naturally of a local character. Both supply to the middle-class person a vital need just when he needs it, though at the time he sorely needs it he is quite unable to pay for it. The one provides a home for him and his family; the other, medical care for him and his family. He pays eventually for his home by the accumulation of such regular small installments as he can afford. He pays periodically for his medical care by small premiums which he can afford; and these premiums suffice because of the many who pay the premiums, only a few need medical care during any premium period."

PRINCIPLES OF AFTER CARE FOR SANATORIUM PATIENTS*

By David R. Lyman, M. D.
Wallingford, Conn.

THERE is no question today as to the importance of keeping in touch with sanatorium patients after their discharge. Not only is this follow-up necessary to give us a check on the efficiency of the work of our institutions, but, when properly done, it is of real benefit to the patients themselves because:

a. It results in the detection of early symptoms of relapse at a time when an alteration of the mode of living for a brief period may obviate the necessity of another long term of sanatorium care.

b. It can be made the means of securing for the patient much needed assistance in the solving of serious problems, social and financial, arising in the course of his economic readjustment.

c. It tends to make the patient take better care of himself, for it is a human trait to be on your best behavior when conscious that you are being watched or that you will be called upon to make a full report of all your actions.

In addition to these considerations, the follow-up studies of our cases should give us valuable data as to the causes for the many breakdowns that occur, and enable us to plan better for the benefit of future cases.

The one great question concerning this work is not whether or not it is worth doing but how it can best be done.

Many sanatoriums have for years past attempted to trace their ex-patients by means of yearly letters, supplemented by personal interviews with all who can be persuaded to return for examination from time to time, and by periodical "reunions."

Records have told us something of the efficiency of our work, and the reunions have not only had an excellent effect upon the morale of the sanatorium but have been first-class propaganda.

Conducted along these lines the work has, however, been of limited value to the patients. Recognizing this, some states have instituted periodical clinics in different centers, conducted by the staff of the sanatorium. This has been a distinct advance over the old methods and represents the most effective form of follow-up that the sanatorium can accomplish, but it still fails to secure the best results.

As a matter of fact the sanatorium is not in a position to do effective follow-up work. To attain the greatest value both for the patient and for the community, which directly or indirectly must bear the expense of his illness, this work must reach directly into the home of the patient, for it is only there that one comes in touch with the social and financial problems upon which depends the success or failure of the patient's efforts to re-establish himself in the community.

For this reason such work to be done properly must be done by outside agencies.

Of these agencies the two most suited for the job, and the two that should be in close cooperation in it, are, first, the visiting nurses of the local health association and, second, the doctor.

The sanatorium can make its chief contribution to real follow-up of the patients through these two agencies. Its task is to convince the patient of the value to him of the friendly cooperation of both the local health association and of his family physician, and then to provide both of these with copies of the notes of the progress of the case and with a summary at the time of discharge, setting forth the instructions given the patient as to type of work advised, hours of rest and exercise and all data needed to enable them to cooperate intelligently with the patient.

Educate the Family

"THE failure to reach and educate the families of our patients is to my mind the one great defect of our present system of after care for sanatorium patients. All of us who are working for the patient's ultimate recovery, that is, the sanatorium staff, the family physician and the local health association, should unite our efforts to see to it that before the patient goes back to his home, the members of his family are given an intelligent conception of the needs of his case so that they may cooperate in his after care."

*This is the fourth of a series of articles to appear in succeeding issues of THE MODERN HOSPITAL, dealing with the planning, equipment, organization and operation of tuberculosis sanatoriums and preventoriums. This series is prepared under the direction of Robinson Bosworth, M.D., superintendent, Rockford Municipal Tuberculosis Sanatorium, Rockford, Ill.

With these records as a basis, the medical and social agencies in touch with the patient and his home life can, through periodic medical examinations and friendly visits at intervals to his home, make this follow-up work of real value to the patient, a value that it can never attain when carried on by the sanatorium itself.

When the patient is discharged from the sanatorium with his general health restored and his disease "apparently arrested" or "quiescent," he has finished but one-half of his journey back to health. The longer and harder half still lies ahead, and the problem of after care, especially in the first few years, becomes of the utmost importance.

The first foundation for successful after care must be laid at the sanatorium by the thorough education of the patient. He must, if we hope for him to succeed finally, not only have his general health restored and all physical defects that might tend to impair it corrected, but must be taught the nature of tuberculosis; the reasons why the measures used at the sanatorium are able to bring it under control, and above all, the need for a continued routine application of these measures in his daily life after he is back home. If the sanatorium is "on to" its job, it can do this with a very fair degree of success. There is, however, one other important group that needs this same education regarding tuberculosis and the reasons underlying our measures for its cure, and that is, the families of our patients.

Families Hard to Instruct

This is a much harder group to reach. Brief conferences with the busy sanatorium staff on visiting day usually constitute all the "education" these can get, and where the patients come from distant points, few of their household get even this scant opportunity to obtain a proper understanding of the situation. I am convinced that could the families of our patients once be given an intelligent understanding of tuberculosis and of the routine that the patients must follow after their return, our after results would be very much better than they are now.

Aside from acute respiratory disease, my experience has been that the large percentage of failures among my cases discharged with a favorable prognosis, have been due either to carelessness on the part of the patient, against which the family did not know how to guard, or to direct interference with the routine of the patient by well meaning members of the family circle, who were in complete ignorance as to the real needs of the case.

The failure to reach and educate the families of our patients is to my mind the one great defect of our present system, and all of us who are working for the patient's ultimate recovery, that is, the sanatorium staff, the family physician and the local health association, should unite our efforts to see to it that before the patient goes back to his home, the members of his family are given an intelligent conception of the needs of his case so that they may cooperate in his after care.

Basis of Adequate After Care

Adequate after care is based upon the same principles that dictated the regime imposed while the patient was at the sanatorium. It is impossible to lay down a scheme of hours for rest, work, recreation, and sleep which all cases should follow. One can only outline in an article like this the underlying principles of the so-called "rest-cure" and some of the essential features of their application, leaving the details to be dictated by the physician in charge of the individual case.

The principles that should be thoroughly grasped by physician, nurse, patient and family alike are these:

First: Tuberculosis is different in character from both the acute and the chronic diseases as ordinarily understood, and yet resembles both. It has periods of activity when the patient looks and feels sick, when he needs the same quality of medical and nursing care demanded for the acute diseases. It has long periods when it is latent, under control, and in a sense chronic, but unlike the ordinary "chronic" diseases which are incurable, it does in time get completely cured if a proper mode of life is followed.

Second: Nature cures us of most diseases due to bacterial poisons if our body is in good general condition, and does this through the internal chemistry of our body by the production of antitoxin against whatever special poison any disease is producing in our system.

In the case of tuberculosis, Nature supplements this by the formation of tough fibrous (scar) tissue in the diseased areas to help to limit the extension of disease which cannot be eradicated in a short while.

Third: The "rest-cure" is based on a knowledge of these facts and is designed to assist Nature to gain control of the situation in the shortest possible time, and to effect an eventual cure. To do this it places its main reliance on:

1. Rest in the open air.
2. Graduated exercise.
3. Food.
4. Conscientiously applied routine.

Of all the countless cures that have been proposed for tuberculosis, only one has stood the test

of time and that is rest. Its all-important place in our regimes is based on our knowledge of the manner in which Nature works her cure and we use it for the following purposes:

a. To reduce the amount of toxin absorbed and thus help to get the active symptoms of this poisoning under control. When resting in bed the average pulse beat is ten beats to the minute less than when the patient is active. This means that a patient in bed during the fourteen hours he is awake will pump blood through his lungs over eight thousand times less than if he were up, and will therefore save just that much absorption of toxin from the diseased areas there.

b. Rest promotes formation of scar tissue. At rest the patient breathes more quietly and less frequently and this important defense of nature is thus increased.

c. One cannot use the same fuel (energy) for two purposes. The patient must be built up as soon as possible to the point where he has a reserve of general health so that this internal chemistry of his cells and body fluids may be at its highest efficiency. When resting we save all the energy that would be otherwise used for ordinary activities and utilize it for all-important purposes of building up the reserve strength as rapidly as possible.

Graduated Exercise a Measure

Graduated exercise is used to measure the strength of the antitoxin that nature is providing and to test the patient's resistance up to the point where it seems he can safely return to work. It is given on a basis of a slowly increasing routine, watching carefully the pulse, temperature and general symptoms for signs of any increased absorption of toxins, and never proceeding to the next higher grade until it is certain the patient can take his present amount of exercise without any bad effect upon his general well-being. It is our measure of the dosage of the medicine "rest" which the patient needs at any time.

Food, which must furnish the fuel for our case, requires merely a good general diet properly served, with a little extra fuel in the form of milk between meals until the patient has reached what we think should be his normal weight in health.

Conscientiously applied routine is most important because it not only enables us to have an exact knowledge of the patient's entire daily life, and to know how much energy he is using at any given time, but it aids us in training the patient to give routine consideration to his health in his after life. The sanatorium has the task of teaching the patient to get a new conception of the needs of his daily life. All of us ordinarily give routine thought to three things each day—our sleep, our meals and our jobs, because we know these are all necessary to our comfortable existence. We must teach the patient to give this same routine daily thought (not worry) to his health, and to build his daily life around its needs as the first consideration.

Now, how does the care which the patient needs at home differ from that given at the sanatorium? Only in degree. The underlying principles are the same and their application needs to be prolonged to some degree indefinitely, until the patient's health is thoroughly reëstablished.

Essentials to be Observed

Patient, family, physician and visiting nurse must therefore unite their efforts to see that this is done. The great essentials to be always observed are two:

First, routine. The patient's life at home should be planned on a definite routine. He should have definite hours for sleep, work, recreation and rest and these, especially the rest hours, should not be interfered with. The most important thing in his life is that he shall get sufficient rest each day to repair the wastes of his daily exertions, and once the essential rest hours are set aside for unnecessary social activities, the patient and family both lose sight of their supreme importance. The closer any patient can come to spending all his leisure hours at rest during his first year back home the better will be his chance of recovery.

Second. The general health must be kept up to the point where the patient has a constant reserve on hand above his daily needs. This must be done at any cost, or failure is eventually certain. Once the reserve is gone the healing process stops and the disease may become active again. Therefore this must above all things be borne constantly in mind. If the patient cannot hold this reserve of strength on the schedule he is following he has only two alternatives—to alter his schedule and restore his general health or to continue it to certain breakdown.

Failing general health demands that the patient (a) rest more—that is, decrease his fuel consumption; (b) eat more or (c) do both. At whatever sacrifice of recreation or of working hours, the general health must be maintained.

In addition to these two great essentials, without which successful after care is impossible, there are two other requisites:

Fresh Air. The patient should have facilities for spending his resting hours in the open air. A sleeping porch is best whenever possible. A sheltered corner in a porch for sitting out serves

as next best when a sleeping porch is not available. Where no porch of any kind is at hand, the patient's bedroom should be well ventilated, having windows on two sides and a sunny exposure, and the windows should be kept open. His nine hours daily indoors at his work can be readily borne if he gets as much fresh air as possible in his leisure hours.

Medical supervision. The patient should report to his doctor once a month no matter how well he may be feeling. If he will keep a diary of his health, recording his pulse and temperature for three days every two weeks, his weight, his hours of work and of rest, and any especial symptoms he may note, and will report with this to his doctor each month, it will have two definite results: The doctor may be able to detect early danger signals in time to avoid a serious breakdown and, second, it will always result in the patient taking better care of himself, for he will be constantly reminded of the health routine that he is, or should be, following.

Work for Discharged Patient

A word in closing as to the work that a discharged patient can do. There is a widespread inclination to blame the breakdown of the average patient upon his work. In my experience work is seldom the cause of the breakdown. Any man or woman in good general health can easily stand the strain of the nine hours of work under average modern conditions if they take proper care of themselves in the fifteen hours remaining. The same holds true of the arrested or quiescent case of early or moderate tuberculosis. There is, however, quite a question as to what type of work is best. The first criterion is that it must be work at which a comfortable living can be earned. That is essential. Granting that, the discharged sanatorium patient can as a rule do better on his old job than on a new one and at indoor work rather than outdoor. For the old job, where that is suitable as to conditions and wages paid, has two advantages over a new job. It will be less strain for a patient to adjust himself to work that is familiar to him and that he can do with comparative ease than to the strange conditions of a new job. Again, when working for an old employer and among old associates he can count on a certain amount of consideration when starting in on part time or laying off for a day or two when he has a cold or is below par. Among strangers this advantage does not exist. It is merely up to him to make good from the beginning.

As to the indoor job being preferable to the outdoor, this is so because there is less exposure; the hours are usually shorter; there is less physical strain attached to it and the pay is better—all excellent reasons.

The many varying factors, such as type and stage of the disease, mentality and education of the patient, housing conditions, living conditions, working conditions, and social and financial status of the family, which all enter into the problem of the after care of any individual case, make it, as I said before, impossible to outline a routine for after care that would be generally applicable.

The fundamental principles underlying this all-important stage of the patient's treatment are, however, the same for all cases, and the above is written in the hope that it may be of aid in securing a better general understanding of these.

WILLARD PARKER HOSPITAL HONORS DR. WILSON'S MEMORY

On November 23, 1926, the medical board of the Willard Parker Hospital, New York, held a meeting in memory of Dr. Robert J. Wilson, for many years director of hospitals of the Department of Health of the City of New York, whose death occurred on October 16. The board adopted the following resolutions in memory of Dr. Wilson:

"The members of the medical board of the Willard Parker Hospital, having learned with profound regret of the death of Dr. Robert Justice Wilson, for more than twenty years, until his recent retirement on account of ill health, associated with this board and director of the bureau of hospitals of the Department of Health of the City of New York, were moved to the adoption of this preamble and the following resolutions:

"RESOLVED, That the death of Dr. Wilson has been a great loss to the people of the City of New York, to the patients served by him in these hospitals which were under his direction and care, and to the doctors of the various staffs of these institutions which he directed for the commissioner of health, and whom he valued as friends.

"RESOLVED, That Dr. Wilson brought to the many duties so notably performed by him a naturally remarkable intelligence and a mind fitted through severe training in laboratory and clinical medicine and medical sanitary science. He could cope not only with the known facts of the science of sanitation but was fitted to aid in the solution of the new problems of public medicine.

"RESOLVED, That Dr. Wilson's superior mental fitness for his work was amplified and enriched by his personal loyalty, not only to the work itself, but to his colleagues and to those who worked with him and under him, all of whom, high and low, thought of him as a friend, rather than as a colleague or superior.

"RESOLVED, Therefore, that this medical board recalls with gratitude his ability and energy displayed in his work, combined with the native, endearing modesty in his own personal achievements. We remember his loyalty, truth, kindliness and above all his justice to those who worked with him, the kind of justice that credited whatever was good in his fellowmen in full measure.

"BE IT FURTHER RESOLVED, That the medical board desires and orders that the above resolutions be spread in full upon the minutes of this meeting, that copies be sent to the commissioner of health of the City of New York and to the relatives of Dr. Wilson and to, at least, three important medical journals for publication."

MEDICAL, LEGAL AND ARCHITECTURAL ASPECTS OF THE NEW B'NAI B'RITH INFIRMARY

By H. J. Corper, M. D., Ph. D., Ernest Morris, LL. B., Denver, Colo., and T. B. Kidner, Consultant on Hospital and Sanatorium Planning, New York

THE dictum expostulated by the pioneers in the field of sanatorium treatment of tuberculosis—Brehmer who in Europe established the first successful sanatorium in the world and Trudeau who founded the first one in America—that the early case should be sent to the sanatorium has not changed. With a more general dissemination of knowledge regarding the methods utilized in the treatment of the early case and the devising and improving of methods for the treatment of the more advanced case, the practicing physician has taken upon himself the responsibility of home treatment, many times to the disadvantage of the patient, and the sanatorium has, to an increasingly greater extent, been reserved only for the severe or strictly bed case.

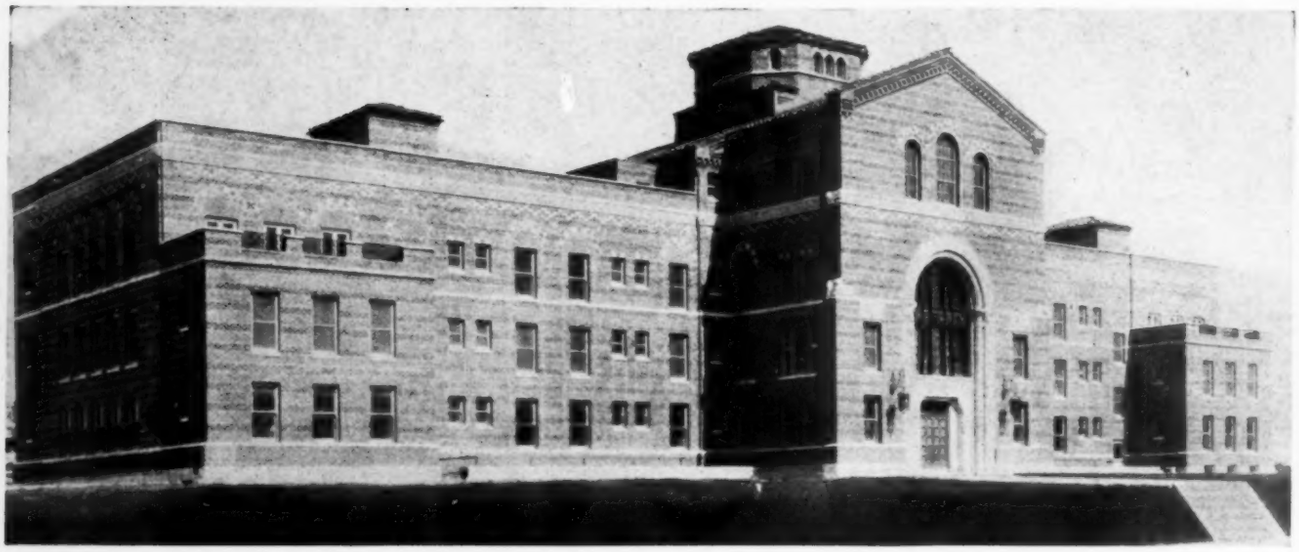
This condition has forced upon the sanatorium the necessity for changing from the predominantly simple cottage plan originated by Trudeau, where medical supervision essentially consisted in applying the methods of fresh air and sunlight, proper nutrition and graded exercise on a group or ward basis, to the essentially hospital plan, with individual private rooms possessing facilities for enforced rest as well as complete equipment for all types of medical and minor or major surgical procedures. The sanatorium of today is truly a tuberculosis hospital possessing all the facilities of the general hospital and able to accommodate a large percentage of its cases on the basis of a non-ambulant medical and surgical status, but specializing obviously because of the characteristics of this disease, such as a long period of residence and the certain educational features not considered feasible in the general hospital under its system of medical service.

Detail of main entrance showing Romanesque twine motives and the large goats in the spring of the arch.

The problem, therefore, with which the board of directors of the National Jewish Hospital, Denver, and its advisers were confronted about three years ago was not dissimilar to that of many other institutions for the care and treatment of the tuberculous. In addition to a demand for more beds there existed an even more important demand for more "infirmary" beds, that is, beds for cases requiring hospital care and one or more of the newer forms of medical and surgical treatment that have developed in the past few decades.

In consequence of the introduction of these newer methods of therapy, many hospitals and sanatoriums find it necessary to remodel or to rebuild their institutions. Buildings representing the latest developments in institutional planning a decade ago, do not meet modern requirements alike in their lack of facilities for methods of treatment and in the character of the accommodations provided for patients. Regarding the latter, probably the outstanding difference between the patients' quarters, as planned in the newer institutions and in those of earlier days, is that more comfort and privacy are now provided.

After serious consideration of future plans for the hospital, the board of directors finally decided to provide a new infirmary building of eighty-four



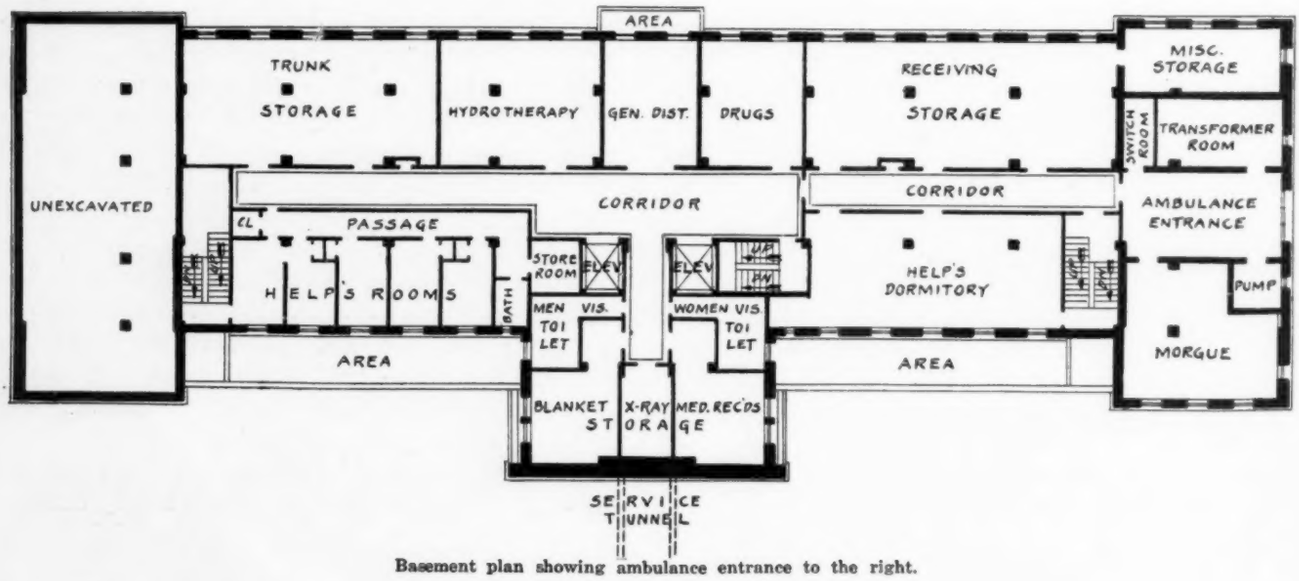
A view of the front and main entrance of the infirmary.

beds, this being forty per cent of the total adult bed capacity, and an ample number to supply the present demands as well as those of the near future, considering modern treatment and the type of cases applying for, and being admitted for treatment.

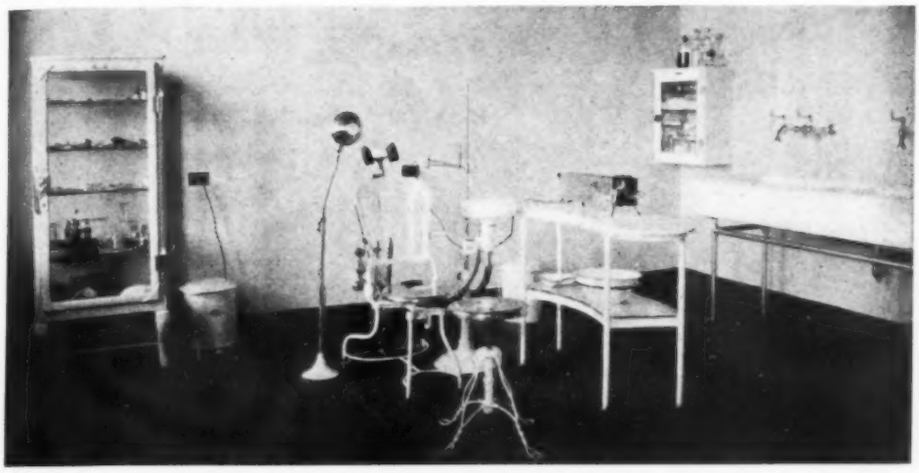
Many forms of buildings were carefully discussed and from these was chosen the multi-story rectangular type of building. This plan was also best suited to the site that had been secured for this purpose, consisting of a city block located east of the original institution from which it was separated by a main boulevard highway of Denver. The long axis of the block of land extends north and south, which arrangement proved fortunate, since an eastern exposure is preferred for patients' rooms in Denver and its vicinity. Because of this, the building was planned with its long axis north and south, and, as a reference to the accompanying plans will show, most of the patients' rooms are on its eastern side, the auxiliary and service rooms are placed on the west side.

Perhaps the most striking characteristic of the building is that every bed is in a single room. While a few general hospitals have been built on this plan in recent years in America, this building holds, in this respect, a unique place among infirmaries and hospital buildings for the tuberculous in this country and marks an advance carefully worked out on the basis that the majority of cases entering the sanatorium at the present time are more or less of the advanced type.

Of the eighty-four single rooms, twenty-seven have individual porches, twenty-one have a porch used in common by a small group of patients, and thirty-six are not provided with special porches. The latter are to be used for patients who are se-



Basement plan showing ambulance entrance to the right.



A view of the eye, ear, nose and throat clinic located adjacent to the dental room on the first floor

riously ill, and who may be wheeled from these rooms to a nearby solarium.

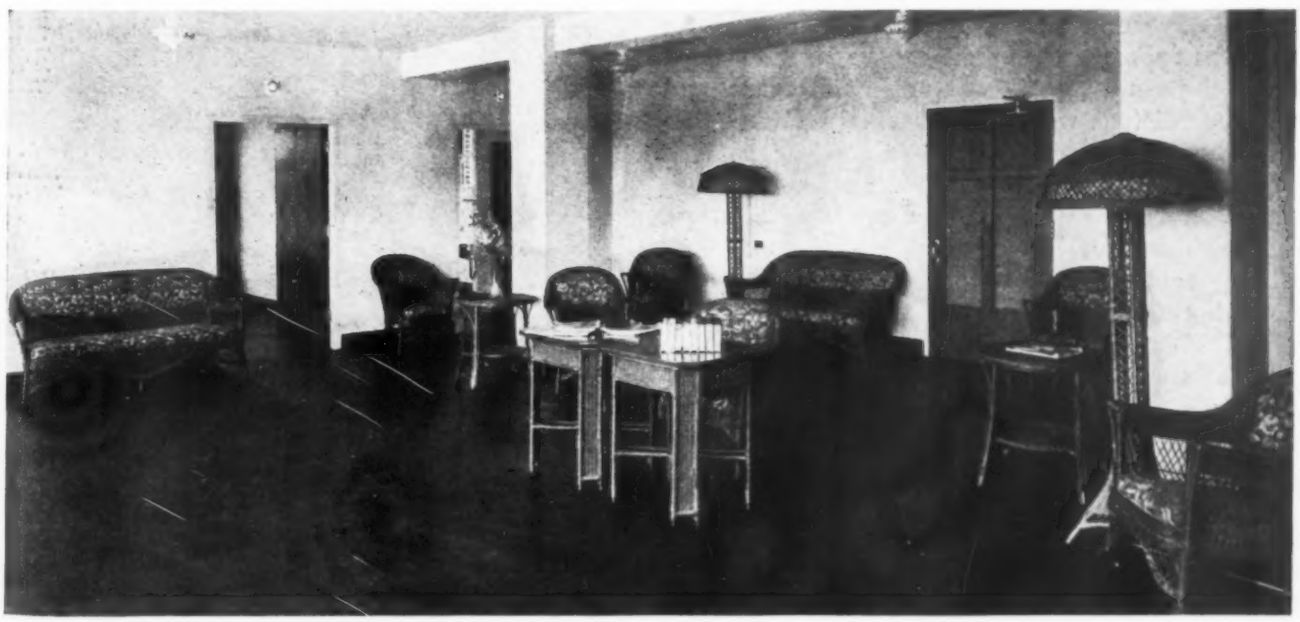
Ample facilities are provided for heliotherapy, both natural and artificial. For sun treatment, two open decks are arranged on the fourth floor, one deck for men and one for women. Dressing rooms and toilet facilities are provided for each six, for the convenience of ambulant patients. Bed cases reach the sun decks by means of the elevators. A portion of each deck is covered over to form a loggia for "air baths."

In addition to the two sun decks on the fourth story, two sun treatment balconies, each with a loggia, are provided on the third floor, which is allotted to women patients. For artificial heliotherapy two rooms are provided, one on the second and third floors respectively.

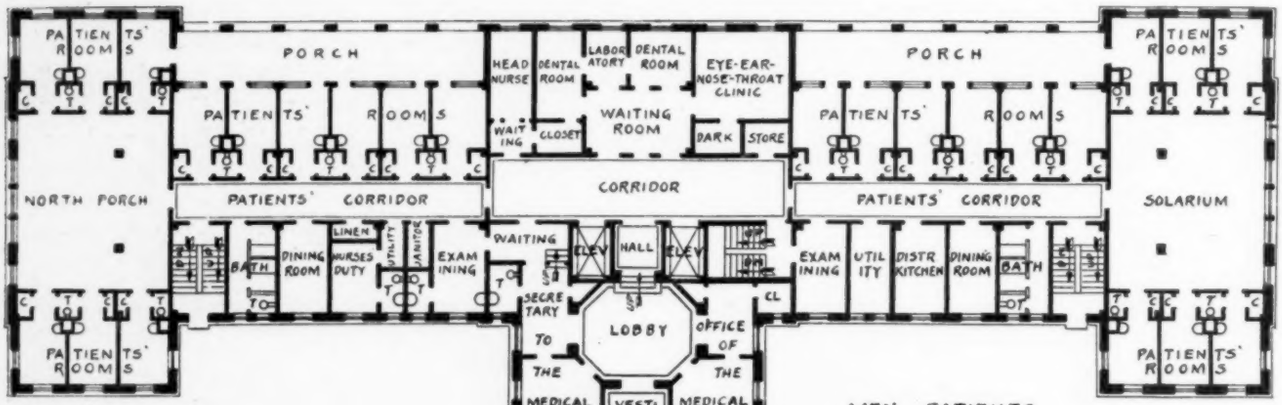
In March, 1925, the National Jewish Hospital applied to the city building inspector of Denver for a building permit to erect a new infirmary building upon the block of land immediately east of its original site and buildings and across Colorado Boulevard. The building inspector denied the application upon the alleged ground that the new building would become a hospital for contagious or infectious diseases and would, therefore, constitute a non-conforming use contrary to the zoning ordinance of Denver, which had become effective February 11, 1925.

The hospital took an appeal from the building inspector's decision to the board of adjustment. This board, pursuant to the Charter Amendment of Denver, adopted May 15, 1923, is composed of five members, and is clothed with jurisdiction to determine such appeals, to decide special exceptions to the terms of the ordinance, and to authorize a variance from the ordinance terms where unnecessary hardship will result.

Upon hearing the appeal, it was maintained on behalf of the hospital that the institution was merely extending its activities by building an addition to its plant of buildings and that the disease of tuberculosis, which had for a quarter of a century been treated at the hospital, is not a contagious or infectious disease within the meaning of the zoning ordinance. Contrary contentions were made by the opponents to the erection of the infirmary building. Three of the members of the board of adjustment voted in favor of



One of the large solariums.



First floor plan.

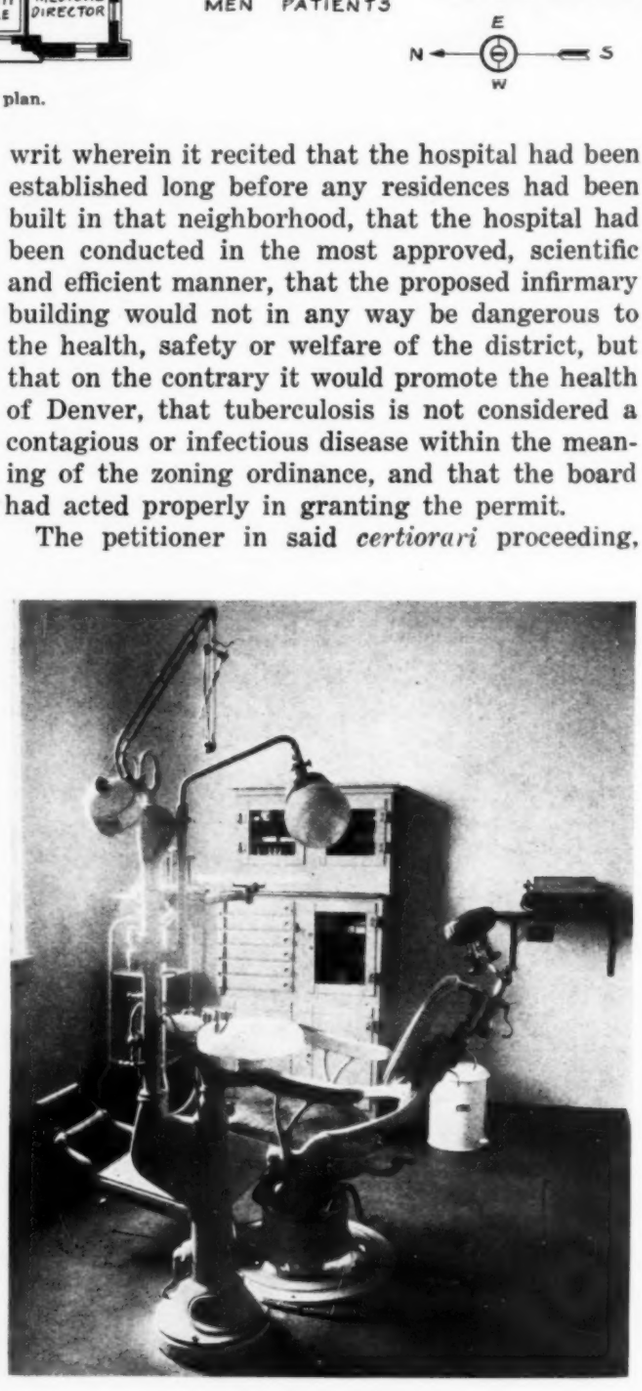
granting the permit and two voted against it. Since the charter provides that the vote of four members of the board shall be necessary to effect any variation from the ordinance, the application was again denied.

The city attorney, however, advised the board that the ordinance provides that the erection of a hospital building upon the plot devoted to such use at the time of the passage of the ordinance shall be deemed a conforming use; and he pointed out that since the hospital had several years before purchased the land for the construction of the infirmary building and since the City of Denver had by ordinance granted the hospital permission to build a tunnel under Colorado Boulevard to connect with its other buildings, the infirmary building would therefore be a conforming use. Therefore the board of adjustment upon its own motion allowed a rehearing of the application and granted the permit by the vote of all of its five members. The board not only followed the ruling of the city attorney but also concluded that tuberculosis was not a contagious or infectious disease within the meaning of the zoning ordinance.

Shortly thereafter a neighboring resident obtained a writ of *certiorari* from the district court against the board, the hospital and the building contractor for the purpose of reviewing the ruling of the board and having the same vacated. This proceeding was based upon the theory that the board had exceeded its jurisdiction and grossly abused its discretion in granting the building permit. It was alleged that the permit was in violation of the zoning ordinance, that the proposed building was to be used for a tuberculosis hospital and that "said disease of tuberculosis and consumption is dangerous, communicable and infectious, and almost invariably fatal."

The board of adjustment filed a return to said writ wherein it recited that the hospital had been established long before any residences had been built in that neighborhood, that the hospital had been conducted in the most approved, scientific and efficient manner, that the proposed infirmary building would not in any way be dangerous to the health, safety or welfare of the district, but that on the contrary it would promote the health of Denver, that tuberculosis is not considered a contagious or infectious disease within the meaning of the zoning ordinance, and that the board had acted properly in granting the permit.

The petitioner in said *certiorari* proceeding,



A view of one of the dental rooms.

upon final hearing before the court, failed to make good any of the allegations upon which the petition was based. The court decided that the board of adjustment had not violated any of the provisions of the zoning law or ordinance, or abused its discretion, but on the contrary had acted within its proper jurisdiction as provided by the charter and ordinance. The result was a dismissal of the *certiorari* proceedings at the costs of the petitioner.

The same party who instituted the *certiorari* proceedings also brought an injunction suit against the hospital and the building contractor to restrain the erection of the infirmary building. This suit was first brought upon substantially the same theory as the *certiorari* proceeding.

After the latter proceeding was dismissed an attempt was made to amend the injunction complaint so as to claim that the infirmary building would be a common law nuisance which should be restrained by injunction. The district court held that the plaintiff could not abandon the original theory of its injunction by amending the same so as to set forth a different cause of action. Accordingly the court likewise dismissed the injunction suit.

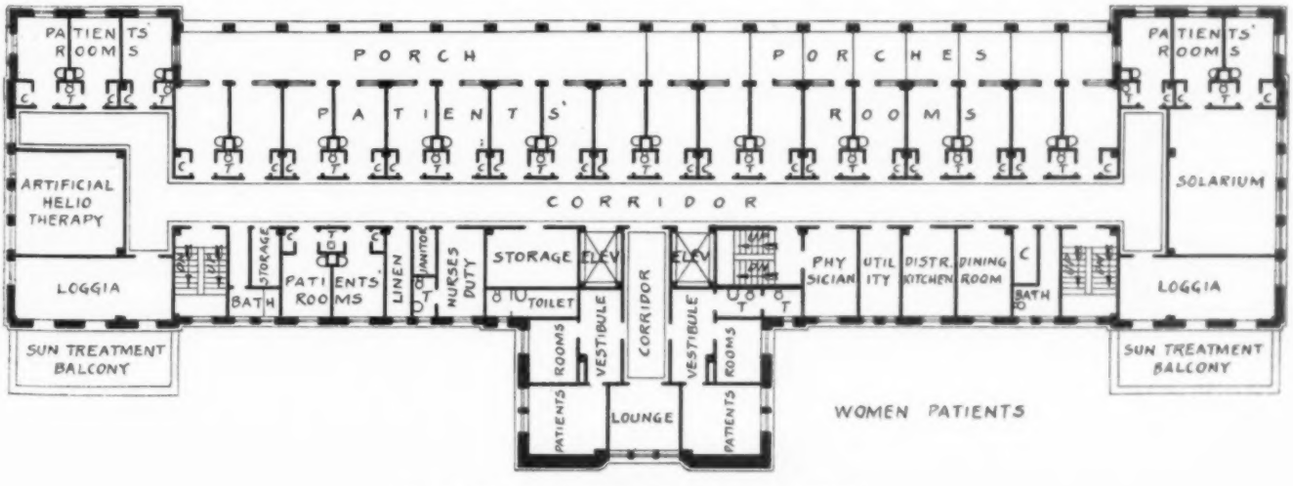
The style of architecture used in the design of the B'nai B'rith Infirmary building is Romanesque. Buildings of this style date back to the eleventh century in northern Italy and were usually built of brick or stone, although terra cotta was used extensively in the later Romanesque buildings. The characteristic decorations of this style were bold running ornament and animal forms, usually grotesque. While this architecture was distinctly an ecclesiastical type in the beginning, it has been used in modern times for all sorts of buildings. In America in the past twenty years or more it has been used frequently in the designing of schools, universities and museums, and re-

A corner of the small dining rooms for patients.

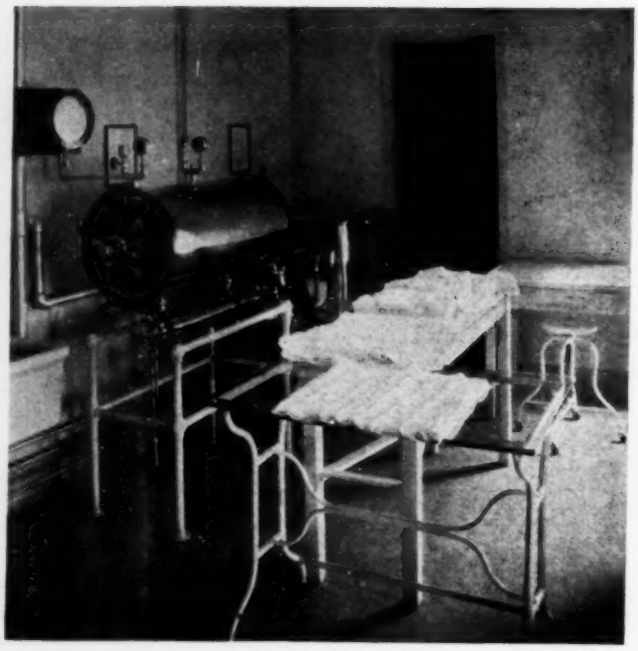
cently Romanesque ornament has been used in the decoration of modern office buildings and hotels, particularly in New York City. In the B'nai B'rith Infirmary the style has been followed.

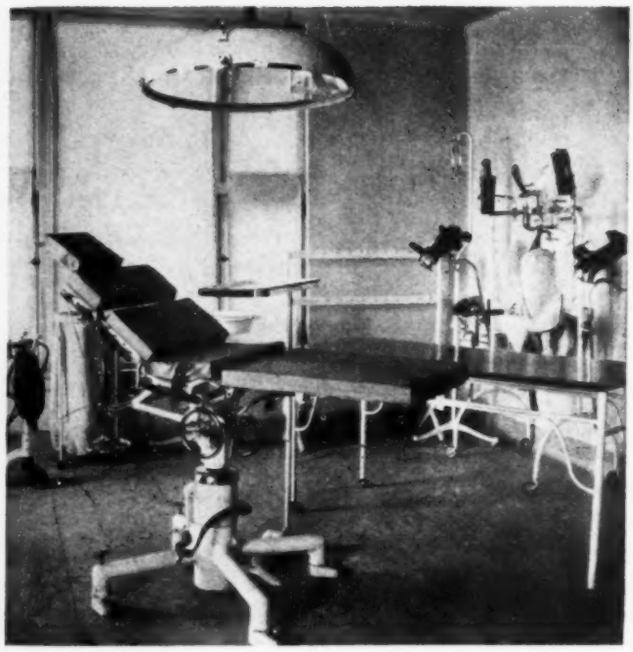
None of the ornament or sculptural parts of the building has any definite symbolical intentions. Beginning with the arch over the main entrance, the traditional twine motives or running ornament found in the Romanesque work are used, but instead of combinations of animal and plant forms this has been simplified.

The large animals in the spring of the arch are, perhaps, symbols of robustness; they have almost an Assyrian character, but are not religious symbols. The large goats were suggested mainly by the function of that particular piece of



Plan of third floor which houses the women patients.





Left, corner of sterilizing room adjoining the major operating room, right, on the second floor.

masonry, although of course there was in the sculptor's mind the age-old story of Moses and the ram's horns.

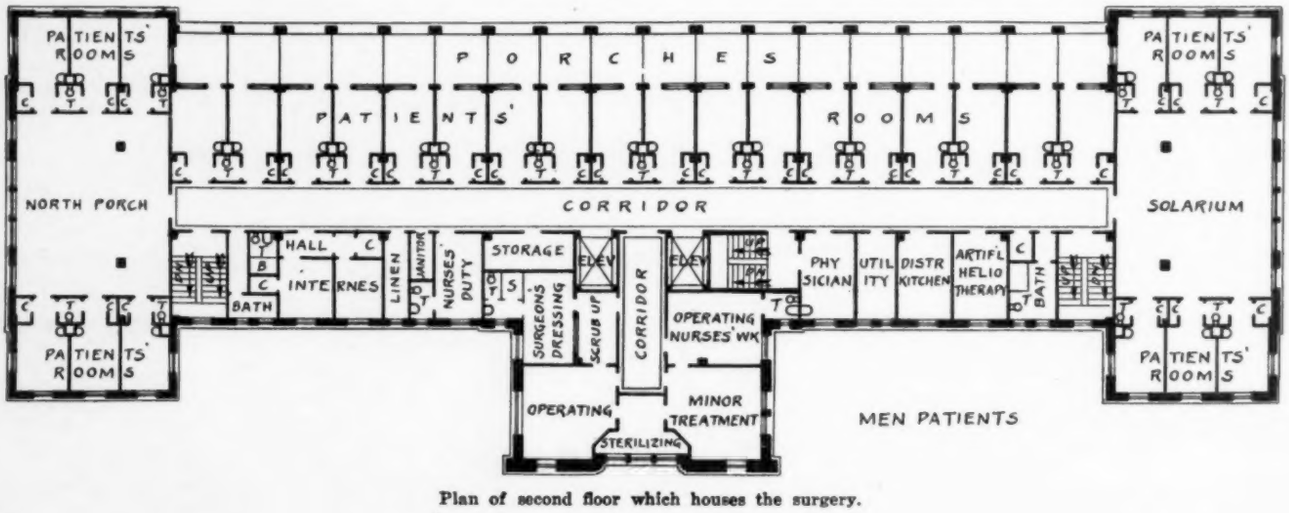
The two large ornamental panels on each side of the doorway are identical and represent the tree of health. The parapet extending around the top of the building is purely fanciful in design. The heads used are oriental in type.

Over the door are four metal panels with a design suggesting the story of the promised land, but a stronger meaning suggests again the tree of health and the quality of robustness.

The materials used in the B'nai B'rith Infirmary are quite typical of the materials used in the original buildings of this style, although stone would more often have been used than terra cotta for the trimmings. The brick in this building is known as stiff mud brick and the trimmings are terra cotta, while the base and steps are of granite.

The flat deck over the main building is paved with vitrified red clay tile, which is considered the finest and most modern method of paving a flat deck, and since this deck is used by the patients, the dark shade of red is most practical, as it takes away the glare of the sun.

On the sloping roof variegated cylindrical clay tile was used. This tile is quite similar to the old tile used in the Byzantine buildings, though possibly a little smaller in size. The windows used in the sleeping porches are of a steel construction with a sash that opens out and permits the use of screens and admits a maximum amount of air. The windows between the patients' rooms and the porches are double hung, wood windows extending from the floor to the ceiling. When the



Plan of second floor which houses the surgery.

lower sash is raised, the bed may be pushed out through it to the porch or part way out as desired. The jambs of these windows are protected with steel so that the bed cannot injure them. In addition to this a door to the porch is provided. The balance of the windows throughout the building are the double-hung type made of wood.

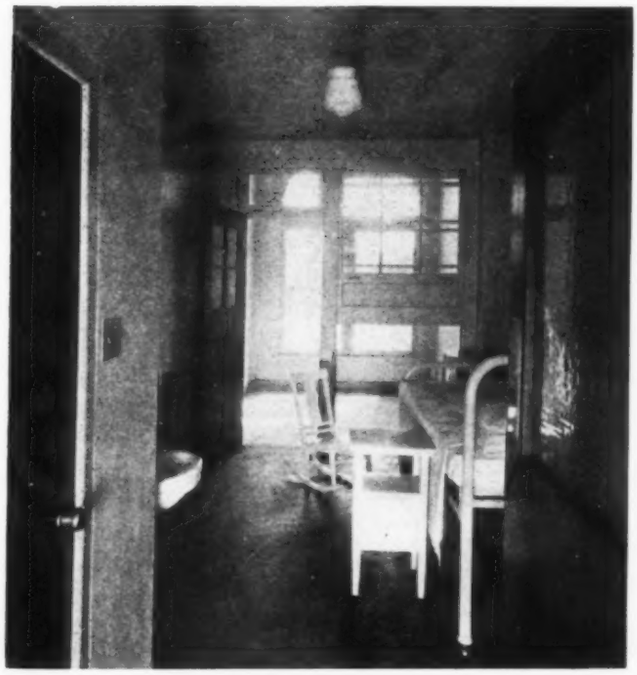
On the south side of the basement, at grade, is the ambulance entrance. The service tunnel from the original group of buildings on the west side of Colorado Boulevard enters the sub-basement under the main entrance to the building and extends from the new infirmary building to the service building, a distance of seven hundred and fifty feet, and almost completely across the original hospital grounds,[1,2] with an extension into the Hofheimer children's building as well as outlets to the main grounds. The entrance from the tunnel into the service building is by means of a large elevator as well as by a staircase through the basement of this building. The tunnel is used principally for the conveyance of food in bulk from the main kitchens, from whence it is brought in heated carts to the diet kitchens, to avoid the necessity of crossing Colorado Boulevard and for the accommodation of steam and water pipes to the infirmary building from the power house. Toilets for visitors and help's rooms are located in the basement of the infirmary building which also affords, in addition, ample storage space. The morgue is located at the southeast corner of the basement.

The principal entrance to the infirmary building is located on the west center of the first floor,

Porch used in common by a group of patients.

the clinical medical offices being arranged on each side of an attractive lobby. On the east side, across the corridor from the entrance hall, the dental suite and eye, ear, nose and throat department are located. This site was selected so that ambulant patients coming from the other buildings of the hospital for treatment need not enter the patients' corridors in this building. For the dental clinic, two chair rooms are provided, one on each side of a dental laboratory. The eye, ear, nose and throat room has an attached dark room for special examinations. The office of the head nurse is also in this section of the building. On this floor are provided two examination rooms, one in each wing. The auxiliary and service rooms include the usual water sections, a distributing or serving kitchen, and two small dining rooms. The dining rooms were included because the patients on this floor will probably have reached the "dressing-gown" stage of recovery. It should be noted that every patient's room on this and the other floors of this building is equipped with a lavatory and between each two rooms is a toilet. These features add to the comfort of the patients and reduce labor and inconvenience for the nurses and attendants. The porches on the first floor are used in common by groups of patients. The building is fireproof throughout and in addition to the principal stairs and elevators, fire exit stairs are provided at each end of the building.

The second floor is devoted to male patients. As noted earlier, most of the patients' rooms are



A view of one of the twenty-seven individual rooms with porches.

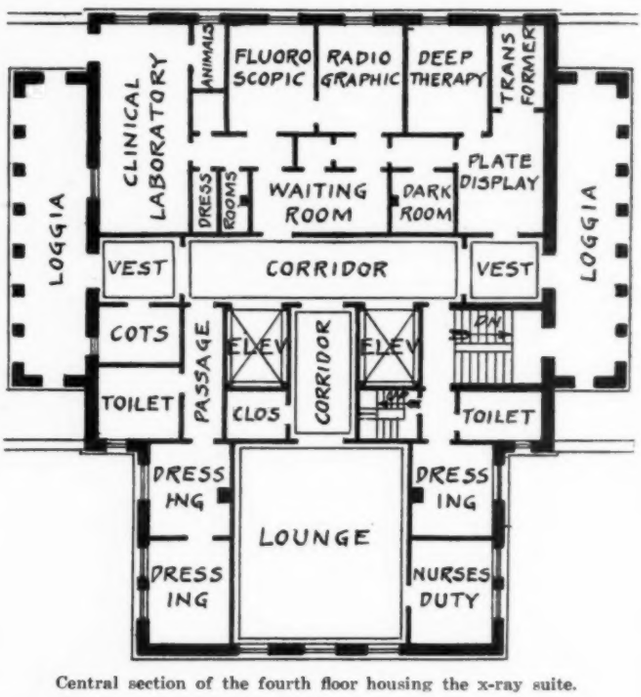
1. Pisko, S., "The New Children's Building of the National Jewish Hospital", THE MODERN HOSPITAL, 1921, Vol. 16, p. 404.
2. Corper, H. J., "A Modern American Tuberculosis Sanatorium," THE MODERN HOSPITAL, 1923, Vol. 21, p. 595.

A corner of the clinical laboratory located on the fourth floor.

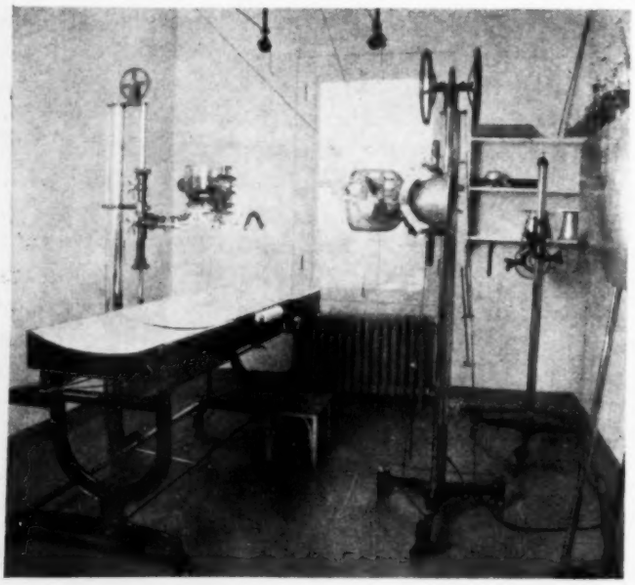
located on the east side of the building. Individual porches are provided for eighteen of the thirty beds on this floor, as it is probable that the majority of the cases will be seriously ill and should not be disturbed by other patients. The major operating room and a room for minor surgical procedures are grouped with their auxiliary rooms on the west side of the second floor. The main operating room has its principal window on the north, and the surgeons' dressing and scrub-up rooms are arranged conveniently nearby. Two rooms on the second floor are allotted to medical assistants or interns on duty, and have a private corridor and bathroom. The "north porch" on this and other floors was planned for use on hot summer days, but also forms a comfortable sitting room in winter.

The third floor is for women patients, some of whom will be bed-fast, and some in the "dressing-gown" stage. Nine rooms have private porches and the rest of the porch space is used in common by a group of patients. Reference has already been made to the balconies on this floor for sun treatment, conveniently arranged with a loggia at the rear of each balcony. The rooms in the central portion of the western side of this floor can be used at will for patients or for the personnel, according to the extent of occupancy of patients under treatment.

The fourth floor of the infirmary building has, in addition to the decks for sun treatment, a clinical laboratory for the purpose of performing the usual routine clinical laboratory tests and the x-ray suite suitable for fluoroscopy, roentgenography and roentgenotherapy shown on the accompanying plan which is a section of the fourth floor, the sun decks being located beyond the loggias, one on each end of the floor.



Central section of the fourth floor housing the x-ray suite.



A view of the radiographic room.

The erection of the building was made possible through the munificence of the members of District No. 6 of the Benevolent Order of B'nai B'rith, Harry H. Lapidus, Omaha, Nebr., district chairman, B'nai B'rith fund raising committee, and the members of District No. 2, Edwin J. Schanfarber, Cleveland, district chairman of the B'nai B'rith fund raising committee.

The new B'nai B'rith Infirmary building of the National Jewish Hospital, embodying the latest ideas and providing, economically and conveniently, for modern forms of treatment for the tuberculous, is an outstanding contribution to the cause of anti-tuberculosis work in America.

PREVENTIVE MENTAL MEDICINE AND ITS RESULTS

By J. Allen Jackson, M.D., Superintendent, and Horace Victor Pike, M.D., Clinical Director, Danville State Hospital,
Danville, Pa.

UNTIL recent years mental diseases were regarded by society in general as carrying with them a certain stigma that branded both the sufferer and his family alike, and the condition was spoken of in a whisper and frequently help was not sought until some overt act demanded segregation. Medical colleges placed psychiatry in a small group of minor specialties, and the physician practicing general medicine viewed the mind and its disorders as separate and apart from the functions of the body as a whole, considered mental disease and insanity as synonymous terms and employed the stock prescription "commitment to the asylum." The general hospital and its nursing staff shivered with terror at the thought of having a mentally disturbed patient within its walls.

This order of affairs, however, is rapidly passing. The mental hygiene movement which is progressively becoming nation-wide is bringing to parents, teachers, civic and social organizations definite constructive information relative to the prevention and early treatment of mental disorders. Physicians are realizing that a goodly percentage of their everyday problems are psychiatric and there is being demanded by state boards of registration something more than a perfunctory knowledge of mental diseases upon the part of the graduate nurse. General hospitals are working hand in hand with the neuropsychiatrists in the reception and treatment of mild and border line cases and preventive work has scarcely begun in the majority of hospitals. Psychiatric clinics are as yet in their infancy.

Among the most favorable signs of progress in the treatment of the individual suffering from mental disorder are this changing attitude of the general hospital in the matter of receiving such patients in its wards, the development of neuropsychiatric out-patient clinics and an earnest effort upon the part of the physicians on the staff and the nursing personnel to provide the research work and scientific care that are so essential for the removal or correction of the various physical conditions that so frequently are the underlying factors in the psychoses. These conditions if recognized early will in a large percentage of cases yield to treatment and complete recovery can be brought about without the necessity of commitment of the patient to a hospital for mental diseases.

Not alone in the larger municipal and industrial centers is this evolution manifest but throughout the smaller cities and towns the general hospital is awakening to its obligation to the mentally as well as the physically sick individual. The writers have been especially impressed with the advances along these lines, especially in central Pennsylvania and the districts served by the Danville State Hospital, Danville, Pa. Definite achievements have been witnessed in these districts where preventive medicine is now well under way.

Five years ago this hospital began extending its activities along clinical and educational avenues into the twelve counties making up the community from which mentally ill patients were received. A neuropsychiatric clinic was opened in the city of Williamsport, Pa., for the purpose of providing examination and expert advice concerning the treatment of the mentally defective and mentally diseased individuals who might be referred by the physicians, the schools or the courts, or who might apply voluntarily for examination. Shortly thereafter at the request of the Geisinger Memorial Hospital, Danville, a course of lectures on abnormal psychology and nursing

A New Viewpoint

WITHIN recent years society has changed its viewpoint toward the mental patient, what constitutes a mental patient and at what point of his disease he should be hospitalized. The object to be attained in the treatment of all mental cases is to promote recovery or to arrest the disease, in order that the patient may adapt himself to an ordinary mode of living. The general hospital offers untold possibilities for the mental patient and it is here shown that both in the larger municipal and industrial centers and in the smaller cities the general hospital is awakening to its obligation to the mentally as well as the physically sick.

in nervous and mental diseases was provided for the nurses in training.

At this time the universal reply to the request that a mental patient examined at the clinic be admitted to the general hospital for study and treatment was: "We are not properly equipped to handle such patients, their presence would disturb the acutely ill and the responsibility is too great for us to accept." Gradually, however, as the work went on physicians began to realize that many of their mental patients could be cared for at home, and if at home then surely in a general hospital. Soon it became evident that the equipment necessary did not consist of strait jackets and padded rooms, but rather of an intelligent understanding of the medical treatment and nursing care of such individuals. This fact once established, efforts became directed toward providing the necessary information for the nursing personnel, and one after another requests were filed with us for courses of instruction for nurses in training.

At the present time we are presenting such instruction before the training schools of eight general hospitals, our mental clinics have reached eight in number, where approximately 2,000 visits are paid annually, about 55 per cent of this number being new patients seen and examined for the first time. These patients coming from all walks of life, representing all ages from infancy to the senile period, and suffering from all degrees of mental defect and all types of psychoneuroses and psychoses, have in approximately half of the cases presented environmental, physical or neurological handicaps sufficiently well defined to merit consideration as possible determining etiological factors.

Environmental Handicaps

In the removal of the environmental handicaps the nursing and social service personnel of the clinics have found their great field of usefulness, and in this connection the judges of our courts have been most sympathetic and cooperative, especially has this been true in the case of the large group of children under sixteen years of age who have passed through our hands.

In many of our cases of psychoneuroses, early dementia praecox, varying degrees of emotional depression and melancholia, we have found, coexisting with the mental disorder, physical conditions calling for specialized lines of treatment and surgical procedure. In others no physical factors have been demonstrated and yet we have felt that removal from home environment with prolonged rest in bed, attention to diet and elimination, together with modified hydrotherapy and hospital regime would possibly accomplish the desired results and save later commitment to a hospital for mental diseases.

In such cases we have turned to the general hospitals, and, though at times with doubt and misgiving, they have opened their doors to these patients. That the outcome has been not only gratifying but at times surprising may be seen from the following case citations:

Removal of Physical Defects

Case I. Female, age 52, for two years had been irritable, nervous, fearful of harm. Gradually she developed delusions of persecution in which ideas of a sexual nature predominated. She accused the neighbors of conducting a house of ill repute; of entering her home at night and committing degenerate acts upon her. Physical examinations disclosed a marked procidentia uteri which had first manifested itself a few months previous to her nervous and mental symptoms. She was admitted to a general hospital where a surgical operation was performed and she remained under treatment for about two months. Gradually the mental symptoms improved and at the time of discharge from the hospital her former delusions had entirely disappeared.

Case II. Female, had shown mental symptoms for nearly one year. At times of examination at the clinic she presented very definite evidences of a melancholia; she was emotionally depressed, her thought processes were retarded; she was hypochondriacal, took little interest in herself or things about and complained of pain over the right iliac fossa and right hypochondriac region. Her general appearance suggested a toxemia, and examination disclosed infected teeth, harsh, dry, sallow skin, conjunctivae jaundiced and tenderness and rigidity over gall bladder and appendix. Upon request she was admitted to a general hospital for further examination and study. This resulted in appendectomy and cholecystotomy, following which she made a good physical recovery and at the present time, three months after operation, is apparently normal mentally.

Case III. Female, age 19, high school graduate and stenographer by occupation. For a period of six months she had shown a gradual change in disposition. She became seclusive, lost interest in her work and finally gave up her position, remaining in the house, at times refusing to talk or eat and on occasion becoming resistive and difficult to care for. When seen at the clinic she was sullen, uncommunicative, gave evidence of auditory hallucinations, together with emotional indifference and a general silliness in manner that was typical of an early case of dementia prae-

cox. Her tonsils were infected and there was some vasomotor disturbances but otherwise no well defined physical findings. She was admitted to a general hospital and her tonsils were removed, after which she remained in bed for a period of six weeks, receiving hydrotherapy, full feeding, and general tonic medication. At the end of three weeks she began to show a decided change for the better. Two months later she was discharged from the hospital, and after a few weeks spent with relatives she returned to her home and former position and at the present time, one year later, is entirely well.

Not alone in the matter of receiving and treating such cases as above cited have the general hospitals worked hand in hand with the mental hospital and its clinics. The medical, surgical and laboratory staffs also are cheerfully providing the special examinations and carrying out the various medical and surgical procedures necessary for the correction of various defects found in patients presented at the clinics for whom hospitalization is not essential, especially among school children who are mentally retarded. Patients in the state hospitals whose condition demands surgical procedure are no longer compelled to wait for relief until consulting surgeons are summoned often from many miles distant, but are upon the request of the superintendent received immediately in the general hospital for operation.

Thus the attitude of the general hospital to the mental patient is becoming one hundred per cent cooperative. It is taking a broad view of preventive mental medicine and the results are already becoming definitely manifest.

EARLY CONVALESCENT INSTITUTIONS

Two hospitals for convalescents existed in Paris in the seventeenth century, Hotel Dieu and the Charite. The convalescent section of the former was founded about 1640 and the latter in about 1650. The cause of the disappearance of these facilities for convalescents lies less in the disorders which increasingly augmented the number of convalescents at the Hotel Dieu than in the necessity which existed at the commencement of the century.

There were then in the hospital, according to the calculations of Tenon, two-thirds acute and one-third convalescent patients. It was, however, recognized that wards for convalescents were indispensable. A royal ordinance under date of 1781 concerning the military hospitals indicated the reasons which in the preceding century had determined the creation of special hospitals for convalescents. It was said in this ordinance that "to obviate the prolongation of convalescence, occasioned by the bad quality of the air breathed in the acute hospitals there should be established in connection with those situated in cities where the air is particularly damp, hospitals for convalescents, which should be located either in neighboring towns or in the country."—John Bryant, M.D., "Convalescence, A Chronological Review to 1878."

SHOULD AMBULANCES BE SUPPLIED WITH GONGS?

The following letter from Dr. John E. Daugherty, executive director, Jewish Hospital of Brooklyn, Brooklyn, N. Y., will be read with interest by hospital administrators who have been embarrassed by the indiscrete use of the ambulance gong of their particular institution:

"In looking over the December issue of THE MODERN HOSPITAL, I find discussed in your Everyday Problems column a subject that is of such live interest to me at the present time that I cannot refrain from sending you a few words giving my immediate reaction.

"I refer to the item "Should the ambulance be supplied with a gong or an ordinary warning signal?" One of the most difficult administrative problems in connection with the metropolitan hospital is the conduct of its ambulance service. From many bitter experiences I am impressed with the need for a safe and sane operation of the ambulance.

"To discharge the offender after some accident or unlawful incident is brought to the attention of the administrator, does not correct the evil. A chauffeur with an excellent record, once placed in charge of an ambulance with a gong at his hand seems to pass from the sane to the dangerous group by this translation.

"I would remove all gongs from ambulances. I would insist that every ambulance obey all of the traffic rules and regulations and if possible I would have some penalty attached to a violation of the traffic rules. I would make this penalty more applicable to drivers of ambulances, if possible, than to the drivers of ordinary vehicles. If there is any element in society that should obey laws of safe conduct it should be that element whose calling has to do with the conservation of life and health. Ambulance drivers should be more amenable to the laws of traffic than other persons, rather than less so.

"I have been seeking for a long time a mechanical device to be attached to the transmission of the ambulance, which would automatically disengage the power from the road wheel of the vehicle in the event that a certain predetermined and safe speed was exceeded.

"I wish most heartily to endorse any movement that will produce safer operation of the hospital ambulance. This vehicle is out of our observation from the moment it leaves our institution and whatever happens from that time to the return of the vehicle to the hospital will reflect credit or discredit without administrative volition. If discredit, the hospital administrator is responsible.

"Anything that will assist the administrator, either mechanical as suggested, or legislative or locally administrative, will be most welcome to hospital superintendents who are in large centers of population and who are required to maintain an ambulance service.

"In our own case, having found other methods such as admonitions, discharges and so forth unavailing, we have resorted to a bonus system as follows:

"Each chauffeur who operates his ambulance without accident over a period of six months consecutively is paid a bonus of $50. This bonus idea has been productive of some improvement."

The investment in hospital properties in the United States exceeds that of the American Telephone and Telegraph Company and the United States Steel Corporation combined. In a single year, 1117 new hospital buildings have been planned, involving $309,000,000 in construction.

Main entrance, United Fruit Company's Hospital, Port Limon, Costa Rica.

SAFEGUARDING EMPLOYEES FROM DISEASE IN THE TROPICS

By W. C. Rucker, M.D., Surgeon, U. S. P. H. S., U. S. Marine Hospital No. 14, New Orleans, La.

AN AMERICAN who came to Costa Rica as a young man and remained to witness the phenomenal growth of the banana trade, once made the statement that in the early days it was the rule that at least 40 per cent of the railway operatives were constantly on sick report. This and similar experiences in Costa Rica and elsewhere early influenced the United Fruit Company, as an economic, no less than a humanitarian, measure, to put into force and continue every practical means of maintaining its tropical employees in the best possible condition of health. Accordingly, provision was made for adequate hospitals with a well trained personnel to care for them when sick or injured. As a result a highly efficient medical department has been created and each of the tropical divisions has a first-class hospital with a well qualified staff of physicians, trained nurses and orderlies.

The earlier hospitals were relatively simple wooden structures but were planned in accordance with what at that time was deemed the best architectural practice for tropical hospitals and were screened and ventilated in a way to provide the maximum of comfort and relief at a reasonable operating expense. So far as was practicable in a backward environment, they followed the advances of medicine closely, obsolete furniture and apparatus being replaced with modern products, and the newer means of diagnosis and treatment were installed to meet the newer methods.

The same policy has been pursued with regard to the buildings themselves and the old wooden structures are being replaced with modern concrete hospitals, planned in accordance with the experience of a quarter of a century. This latter is an important point. The men who plan and build these new hospitals have learned on the ground and by living with the problem what is necessary to meet the local situation and they have learned the futility of having plans for 10° north latitude drawn up

Nurse's room overlooking one of the wards.

by a committee which has never been further south than Jersey City, much like the legendary architect who in planning the Ancon Cathedral included a complete steam heating plant.

Port Limon, the principal Atlantic port of Costa Rica, is situated on a coastal indentation 190 miles west and north of Cristobal, Canal Zone. Here come the ships to carry away the bananas and other fruits which are raised on the interior plantations and on sailing days, hundreds of box-cars hurry to the coast with their perishable cargoes. These are rushed into the refrigerated holds of the ships, the trains returning for other loads of necessities and luxuries destined for tables thousands of miles away. The farms and plantations employ thousands of men, and a large force is required to operate transportation.

To meet the medical and surgical needs of this large group (about 15,000 persons), a wooden hospital was erected at Port Limon in 1906, but with the deterioration of the building which is inevitable in the tropics, the growth of the division and in consonance with the policy of keeping the hospitals abreast of medical progress, it was decided in 1920 to replace the original hospital with an up-to-date, reinforced concrete, fireproof structure. Plans were accordingly drawn in 1920; building materials were purchased and delivered and by October of the same year construction was well under way; the plant was completed in exactly one year and is at present in full operation.

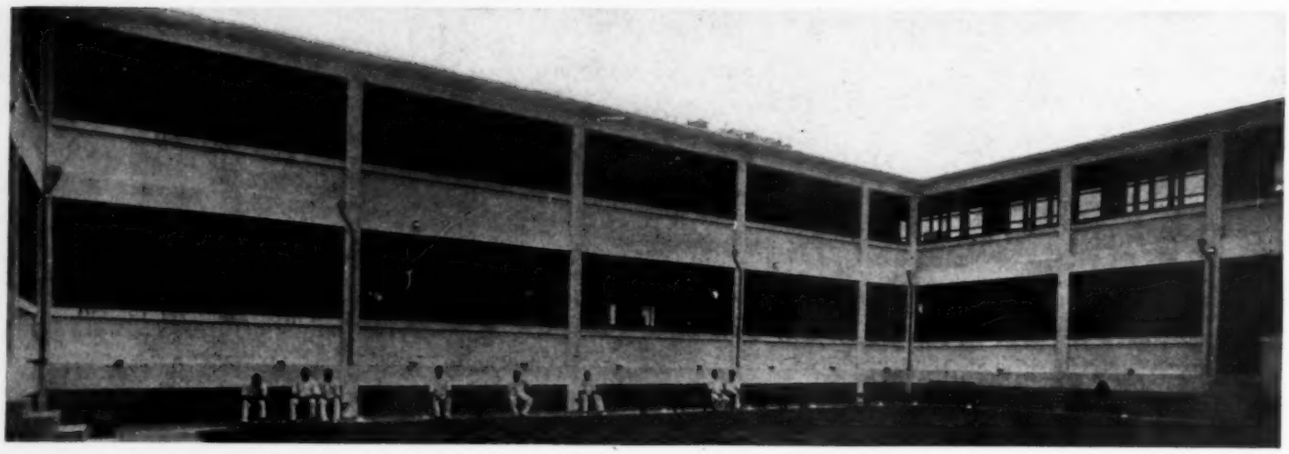
The new hospital, which has a normal capacity of 160 beds, of which twenty are for white patients, and a peak load capacity of 250 beds, is rectangular in shape with an enclosed patio. It is situated on a cocoanut fringed point of land against which beat the long white-crested rollers of the Caribbean. Grouped about the hospital are charming bungalows, occupied as quarters by the officials of the fruit company, including the hospital staff and nurses. The entire point is a veritable park where one may look out to sea through tropical verdure and recall Kipling's line

"But a palm tree in full bearing,
Bowing down, bowing down,
To a surf that beat unceasing,
At a brown-walled town."

The front of the hospital contains on the first floor the administrative offices, the x-ray room, the laboratories and the dispensary. This portion of the rectangle is 105 feet in length and forty-four feet in width. On the second floor are eight private rooms, some containing two beds but the majority only one. The two lateral halves of the rectangle are 112 by 32 feet and are occupied as wards for colored patients (who predominate) except a small ward of six beds on the second floor set aside for white employees. On the side of the rectangle opposite the administration section is the kitchen and dining room wing, 57 by 28 feet. A ten foot screened-in corridor on both floors skirts the interior patio, which is eighty-nine by sixty-seven feet. The wards, private rooms and offices open on this corridor which, in addition to providing ventilation and a place in which patients may exercise in rainy weather, may be used as ward space when the normal capacity of the hospital is taxed. All windows, doors, corridors and verandas are protected against the entry of insects by fine bronze wire screening.

All windows are of French type. Exterior awnings and interior Venetian blinds serve to exclude the heat and glare of the tropical sun.

A view of the main operating room.



A view of the interior patio used by patients for recreation grounds.

Doors other than screen are of composition with maple veneer. All builders' hardware is of rust-proof bronze. Plumbing is of approved sanitary design and there is an adequate number of baths, both shower and tub, with hot and cold water. Floors are of red concrete with hard smooth surface. They are trapped and drained to facilitate flushing. Walls and ceilings are hard plaster finish with a dark terra-cotta dado, buff walls and stippled white ceilings. The hospital is lighted by electricity, semi-indirect system. There is a complete system of electric ward signals for patients and nurses. The medical and surgical equipment, the x-ray machine, all furniture and kitchen equipment are of the best modern design and of American manufacture. There is a reinforced concrete laundry of the most up-to-date pattern in the rear of the hospital.

There is no ambulance service in the ordinary acceptance of the word. As a matter of fact the roads in and around Port Limon are such that the cruising radius and a motor or horse drawn ambulance would be very limited. A spur track from the main line of the railroad runs to the back of the hospital and cars may be brought there and patients delivered direct to the hospital. A more common way is to bring patients in on the gasoline motor cars of which the company has a great many. In this way patients may be brought from distant farms with relative ease, speed and comfort. In all about 5,000 cases are treated yearly.

The exquisite neatness and quiet orderly atmosphere of the hospital bespeak an efficient, kindly administration. The bulk of the cases are medical, malaria, helminthiasis and syphilis predominating but several surgical cases and a herniotomy in process of operation were also observed. The case records are simple but adequate and are well kept. The medical staff consists of Dr. Antonio Facio, superintendent, Dr. M. D. Rojas, Dr. A. Aguero and Dr. N. Villalobos. There are three white graduate nurses and an adequate number of colored, practical nurses who have been trained at the hospital. Acknowledgement is made to M. M. Marsh for the photographs illustrating this article and to the resident physicians and the superintendent of nurses, for much of the material herein contained.

THE CHANGING TYPE OF PATIENT

The hospital is no longer the lazar-house of the destitute, the place to which homeless and plague-stricken outcasts crawled to die, or into which they were herded if they seemed too noisesome and dangerous to be tolerated at large. Such it was in medieval times; then came the period which lasted more or less down to our day, when the hospital was still exclusively used by such as were too poor to pay for the ministrations of a doctor.

Some people still hold that this should be the fundamental function of any hospital which is supported by public subscriptions, and I agree that this primary purpose for which hospitals exist—namely, that of taking in and caring for the indigent poor—must in no way be shelved or neglected.

But we have advanced far beyond that simple conception in these days, and we shall advance much further still, if only because hospitals, from being mere infirmaries, have become the centers of the best medical and surgical skill and agencies for prevention in the areas they serve.

The best nursing, the latest scientific apparatus, are all concentrated there for the service of the poor, and while the rich and well-to-do can look after themselves, there remain large intermediary classes of the population who are cut off from the best skill because, on the one hand, they cannot afford the fees, and, on the other, they are not of the class for which the hospitals were intended. If that were pressed it would indeed be intolerable, especially in view of the increasing expensiveness of any serious operation or illness, the cost of nursing homes, and the palpable unfairness of leaving out in the cold the great body of the middle classes, whose financial betterment has by no means kept pace with that of the superior artisan class, and who have been in the past, according to their means, good and loyal friends of the hospitals.—R. G. Hogarth, M.D., "Medical Practitioner and the Public," *Lancet.*

HOW EFFICIENT ARE HOSPITAL STERILIZERS?

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STERILIZATION is probably one of the most important of objective methods of preventing the spread of disease. On account of the rapid destruction of protein by hot water and steam, many of those who carry out the manipulative procedures of steam sterilization look upon it as a procedure unaffected by many conditions. Some investigators have demonstrated the fallacy of such a viewpoint. This investigation confirms the general point of view that steam sterilization is affected by many conditions and that a knowledge of these is essential.

Few studies seem to have been made on practical steam sterilization. It has been generally assumed that steam was an efficient disinfectant. Eijkman's[1] results bear indirectly on this question: "Live steam under low pressure was found to be much more effective in destroying Bacillus pyocyaneus and anthrax spores than was boiling water. The explanation of this difference was believed to be found in the fact that the boiling point of water was increased by the presence of soluble materials, such as salt and sugar, while steam is not influenced in this manner."

What Investigations of Steam Show

Rubner[2] (1913) reported that steam at 100° C. with a saturation of 80 per cent took five times as long to kill as saturated steam. He also found that supersaturated steam at 100°, 120° and 127° C., made from saturated steam, was less active than saturated steam at 100° C., since the impregnation of the spores with water decreased, thus reducing the disinfecting action of the steam. Rubner also found that steam under diminished pressure at a temperature of 50-60° C. and containing from 2-8 per cent of formaldehyd, was as efficient as saturated steam at 100° C.; thus allowing the sterilization of delicate objects.

Fred[3] advised, in sterilizing soil, that it be heated at 15 pounds pressure for two hours on two successive days, when small test tubes were used. Longer periods were advised for larger portions of soil. Soil, of course contains enormous numbers of bacteria, some of which may be very resistant.

Another investigation which may be reviewed here was reported by Benton.[1] While this investigation concerned the sterilization of laboratory media, some of Miss Benton's conclusions are pertinent to this discussion. Miss Benton found that the size of container for the medium influenced the heat attained in the center of the medium. She also found that when flasks, bottles or tubes of medium were packed closely together the temperature at the center of the pack was much less than on the edges and that the temperature was more slowly attained in the center than on the edges. In her summary Miss Benton stated that "sterilization should be controlled according to temperature not pressure."

Many Sterilizers Too Small

Hallilay[2] stated that most steam sterilizers are too small and are likely to be overlooked. Many were also said to be operated at too low steam pressures for complete sterilization. Hallilay pointed out that a pressure of thirty pounds was necessary, although many sterilizers on the market would not stand such a pressure. The interior of a sterilizer tightly packed with dressings is difficult to heat. Hallilay stated that flowers of sulphur could be placed in the middle of a sterilizer to show whether or not the temperature had reached 114.5° C.

The writers of this article were requested to make bacteriological tests of the efficiency of a new sterilizer for a small hospital to determine whether or not it would accomplish the results promised by the manufacturers. In order to secure data with which to compare the data secured with the test sterilizer, tests were also conducted on the same materials in seven other sterilizers. A steam pressure of 20 pounds was used throughout the investigation, unless otherwise stated in the individual descriptions of the sterilizers. It is believed that a presentation of the results is justified since sterilization is of much importance.

No. 1. This was a large dressing sterilizer with jacket, chamber and vacuum apparatus for drying materials. It was connected to a steam main carrying 60 pounds of steam. During this test it was operated in accordance with the conditions given in the tables. The steam was taken directly from the steam main but passed through a reduc-

1. Eijkman, C., An Experiment in Steam Sterilization. Cent. Bakt., Abt. I., 33, 567-568. Exp. Sta. Record 15, 84.
2. Rubner, M., Modern Steam Sterilization. Jour. Amer. Med. Assn., 60 (1913) 1344.
3. Fred, E. B., A Laboratory Manual of Soil Bacteriology. W. B. Saunders Co., 1916, p. 158.

1. Benton, Anne, and Leighton, Alan, Actual Temperatures Attained by Mediums in Autoclave Sterilization. Jour. Inf. Dis., 37 (1925) 353-358.
2. Hallilay, H., Asepsis. Indian Med. Gaz., 60 (1925) 455-59.

ing valve. Forty pounds of steam was available for sterilizing and digesting. The pressure was attained in just a few minutes and held throughout the sterilizing period.

No. 2. This was the test sterilizer and was a complete unit in itself. Electricity was used as a source of heat. The sterilizer was provided with a jacket, chamber and vacuum apparatus. The steam was made in a generator just beneath the sterilizer proper. About forty-five minutes were required to obtain the steam pressure desired for the investigation.

A Horizontal Dressing Sterilizer

No. 3. This was a horizontal dressing sterilizer. The steam was made in a generator beneath the sterilizer by means of a steam coil from a high pressure main. The steam pressure was quickly obtained and easily held for the sterilizing period.

No. 4. This was a sterilizer of the autoclave type. Steam was generated in a small gas-fired boiler under the autoclave. In the first sterilizing period (sixty minutes) it took one and one-half hours, after the gas was lighted under the boiler, for the steam pressure to reach 20 pounds. Throughout the sterilizing period the pressure varied from 18 to 20 pounds. In the second and third sterilizing periods, after the boiler and autoclave were hot, the steam pressure reached 20 pounds in forty-five minutes. In all three runs the test packages were the only ones in the sterilizer and they took up about one-fourth of the available space.

No. 5. This was a dressing sterilizer in a city hospital of sixty-five beds. It was connected to a steam main carrying from 40 to 70 pounds of steam. However, the high pressure was used to generate steam from tap water in a generator beneath the autoclave. After steam was turned into the chamber the "coming up" time was between fifteen and forty minutes. It was impossible to get a pressure greater than 14 pounds in the jacket and 12 pounds in the chamber. The test packages were sterilized separately for the thirty and forty-five minute periods; for the sixty minute period, however, the packages were sterilized with packings from the hospital. During this run the sterilizer was tightly packed and completely filled. During all of the tests the safety valve popped at 12 pounds in the chamber. These facts caused us to anticipate the results that were actually secured.

No. 6. This was a large sterilizer much like the retorts used for sterilizing canned foods. Steam from a main carrying 60 pounds was delivered directly to the chamber. It was installed to serve as a central sterilizing plant and 60 pounds of steam was available in the chamber.

No. 7. This sterilizer was a typical installation in a research hospital. Only 18 pounds of steam pressure was used. As soon as these tests were requested the question immediately presented itself as to what contaminated materials would be used for the test. It was realized that much of the material sterilized in hospital sterilizers is prepared from previously sterilized gauze and cotton and therefore the load on such sterilizers would be much lighter than when badly contaminated materials were used. However, it seemed unwise to use previously sterilized material in this test for it could not be ascertained that there were resistant organisms present. Consequently, realizing that so much depends on a safe hospital sterilizer, it was decided to use materials that were known to be contaminated. Emulsions of soil, horse manure, and sewage were used. Plate counts on these materials indicated the following bacterial content:

	Anaërobes per c.c.	Aërobes per c.c.
Soil	750,000	2,700,000
Horse manure	1,500,000	930,000
Sewage	400,000	2,050,000

These emulsions undoubtedly contained organisms of maximum resistance and therefore subjected the sterilizers to a real test.

Small strips of cloth about one inch square were inoculated with about a cubic centimeter of these emulsions. These strips were wrapped in two sizes and types of bundles in order to simulate, as closely as possible, some of the bundles and dressings sterilized under hospital conditions. The small bundle was made by opening out a laboratory towel, 17x30 inches, and placing on it at one end a thin layer of cotton about 6x10 inches.

Sterilization of Cotton Bundles

On this cotton the test strips were placed and inoculated, the edges of the towel folded over and the whole rolled into a small bundle about six inches long and two inches in diameter. This bundle was tied with a string around the middle. The larger bundle was used to make the experiment a little more inclusive. This bundle was made from a whole roll (bat) of unsterilized cotton with the thin tissue paper left on. The test pieces of cloth were placed in one of the small bundles described above. This was pushed into the center of the roll of cotton and the entire bundle completely wrapped in toweling.

In this manner two packages were secured which would permit quite different rates of heat penetration. These were then sterilized in the different sterilizers for thirty, forty-five and sixty

minutes. The sterilization trials were conducted by trained bacteriologists with the exception of the tests on sterilizer No. 7.

The bacteriological tests, to determine whether or not the strips of cloth within the bundles were sterilized, were most carefully carried out to eliminate the possibility of contamination. The test medium for each strip of cloth was 50 c.c. of sterile dextrose broth in a 100 c.c. Erlenmeyer flask. These flasks were sterilized for one hour at 15 pounds and then incubated at 37° C. for one week to make certain that they were sterile. Not one of the flasks showed growth.

The strips of cloth containing the test material were removed from the package by sterile forceps. These forceps were allowed to stand in formalin for about fifteen minutes and then flammed for a minute or so to burn off the formalin and to complete the sterilization. A strip of cloth was removed by one operator and pushed immediately into one of the flasks containing sterilized media. held by another operator. In this manner there was little opportunity for contamination of the articles.

Control flasks were inoculated from packages like the test packages, that were not inoculated with the contaminating dose. They were known to be sterile having been sterilized at 20 pounds for five hours. There was no growth in any of these flasks (twelve), proving the efficiency of our method. The flasks were then incubated at 37° C. for about fifteen days and then at 55° C. for four days, the latter, in order to detect the presence of thermophilic bacteria. This long incubation period was used in order to reduce as far as possible any errors in the data due to dormancy, a condition that was suggested by Burke.

It was also suggested that there be included in each package a Diack tube for checking the efficiency of sterilization by heat. This is a sealed tube containing material that will "fuse or melt in ten minutes at 248° F., provided, of course, that the steam strikes the control, that the packages are not too tightly wrapped, and that the air is eliminated from the chamber, because with steam and air mixed in the same chamber, the temperature is lower than the gauge reading. One writer stated that a sterilizer that would not melt a Diack control tube in thirty minutes at 250° F. should be investigated.

A brief study of the melting points of several Diack tubes was made. For this experiment an oil bath stirred by an electric stirrer was used.

TABLE I. Results on Sterilizers I to V

A—inoculum of soil; B—inoculum of horse manure; C—inoculum of sewage.
A—aërobic culture; An—anaërobic culture; D—Diack tube, + melted, — not melted.

Package			Small Bundles												Large Bundles											
Time of Sterilization			30 min.				45 min.				60 min.				30 min.				45 min.				60 min.			
Inoculum			A		B		C		A		B		C		A		B		C		A		B		C	
Method of culture			A.	An.	A.	An.	A.	An.	A.	An.	A.	An.	A.	An.	A.	An.	A.	An.	A.	An.	A.	An.	A.	An.	A.	An.	A.	An.
Sterilizer Number	1	Gr.	−	−	−	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	*+	−	−	−	−	−	−	−	−
			−	−	−	−	−	−	−	−	−	−	+	−	−	−	+	−	+	−	−	*+	−	−	−	−	−	−	+	−
		D.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	2	Gr.	−	−	−	−	−	−	−	−	−	−	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
			−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	+	−	−	−	−	−	*+	−	−
		D.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	3	Gr.	−	−	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
			−	−	+	−	−	−	−	−	−	−	−	−	−	−	−	+	−	−	−	−	−	−	−	−	−	−	−	−
		D.	+	+	−	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	−	−	+	+	+	+	+	+	+	+
			+	+	−	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	−	−	+	+	+	+	+	+	+	+
	4	Gr.	−	−	−	−	−	+	−	−	−	−	−	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
			−	+	−	−	−	+	−	−	−	−	−	+	−	−	−	−	−	−	−	+	−	−	−	−	−	*+	−	−
		D.	−	−	+	−	−	−	−	−	−	−	−	−	+	+	+	+	+	+	−	−	−	−	−	−	+	+	+	+
			−	−	+	−	−	−	−	−	−	−	−	−	+	+	+	+	+	+	−	−	−	−	−	−	+	+	+	+
	5	Gr.	+	−	+*+	+*	+*	+	*+	−	*+	−	−	−	+	−	+*+	+*	+	+	+*+	+*+	−*+		+	−	+	+	+	−
			+	−	+	+	+*	+*	+	−	+*+	+	−		+	−	+	+	+	+	+	+	+	*+	+	*+	+	+	+	−
		D.	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
			−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−

*Growth at 55° C.

The aim of this brief study was twofold: (a) to determine roughly the melting point of the pellet and, (b) to see if the melting process was a time process. The following results were obtained:

Tube No. 1 Melted 120-125° C. } Took about 2 minutes
Tube No. 2 Melted 115-120° C. } to go from 100-120° C.
Tube No. 3 Held for 15 minutes at 104-108; did not melt—raised slowly from 108-120—melted.
Tube No. 4 Same as tube No. 3.
Tube No. 5 Melted 115-120° C. } Took about 2 minutes
Tube No. 6 Melted 115-120° C. } to go from 100-120° C.

These data indicate that the melting or fusing point of the six tubes examined varied from 115°-120° C. This would indicate that the temperature of fusing was quite satisfactory. At the temperatures close to 120° C., the fusing required but a few minutes.

The data are presented in Tables I and II. Each individual test was carried out in duplicate and is so presented in the tables. The results on both growth and the fusion of the Diack tubes are indicated.

TABLE II. Results on Sterilizers VI and VII.

Inoculum—A, B, C combined (See Key Table I)
A—aerobic culture; An—anaerobic culture; D—Diack tube.

Package			Small Bundles						Large Bundles					
Time of Sterilization			30 min.		45 min.		60 min.		30 min.		45 min.		60 min.	
Method of culture			A.	An.	A.	An.	A.	An.	A.	An.	A.	An.	A.	An.
Sterilizer No.	6	Gr.	−	−	−	−	−	−	−	−	−	−	−	−
			−	+	−	−	−	−	+	−	−	−	−	−
		D.	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
	7	Gr.	‡	−	−	−	−	−	‡	*‡	−	−	−	−
			‡	+	−	−	−	−	‡	*‡	−	−	+	−
		D.	−	−	−	−	−	−	−	−	−	−	−	−

*Growth at 55° C.

It must be admitted that the test bacterial suspensions placed the maximum load on the sterilizers. Some will claim that a hospital sterilizer is not called upon to handle such resistant mixtures as the ones that were used. However, no one can deny the fact that a sterilizer should sterilize completely and be able to destroy any resistant organism that might be present on materials put into it. Especially is this true for a sterilizer in hospitals where surgical work is carried out each day.

The results of these tests need little discussion. They indicate that sterilization may be an unreliable step and should be subjected to bacteriological tests or at least some control in order to detect its efficiency. Several investigators who have discussed this problem have collected from text books statements of the authors about the thermal death point of bacteria. These are not directly applicable to the problem under discussion. In sterilization of dressings, especially those that are tightly wrapped, the element of heat penetration is a variable factor. The type of contamination has great influence, as do innumerable other factors. The safest way to be certain of sterile materials is to have plenty of steam available, a conscientious operator and control tests.

Conclusions

1. Thirty pounds of steam should be available for sterilizing badly infected materials.

2. Twelve to fourteen pounds of steam is not sufficient for sterilization. There should be at least 20 pounds steam pressure and an exposure of forty-five minutes or more.

3. The sterilizer should not be tightly packed in order to allow more even and more rapid penetration of steam.

4. There is also a difference in steam penetration when large and small bundles are used. More time must be allowed for the sterilization of large bundles.

5. The Diack tube seems to be a good indicator of complete sterilization. It has a safety margin which is ample as was shown in the case of No. 4 sterilizer. The tubes were not melted at thirty and forty-five minutes yet there was practically complete sterilization with 18 to 20 pounds steam pressure.

EXTENDING APPRECIATION TO HEADS OF DEPARTMENTS

As many hospital administrators make the practice of writing a letter at the beginning of the year, to the heads of the departments and other personnel, expressing appreciation of their cooperation, the following letter written by J. J. Weber, director, Grace Hospital, New Haven, Conn., is of interest and is presented here for whatever suggestions it may hold for other administrators. The letter reads:

"As an institution we have just ended what has been a satisfying yet very difficult year—satisfying, because I believe we may all feel that we have contributed the best that was in us and have thus made it possible to surmount many difficulties. I say difficulties, because no one knows better than I do the handicaps under which you have often worked and surely no one can appreciate your untiring efforts more than I do.

"Everything you have done to carry on without adding to the financial burden of the hospital; every effort to build up the morale and standing of those immediately responsible to you and to better the work of your department; and, lastly, but by far the most important, everything that you have done either directly or indirectly to add to the comfort and welfare of those who have come to us for help when sick and injured—all those I regard as personal contributions to whatever measure of success the present administration has attained during the past year.

"For this, the Prudential Committee of the hospital and I thank you and express the hope that your interest and courage will continue throughout the coming year, that harmony and a common interest will prevail between all and that, in consequence, a most Happy New Year may be assured you. To that end, may I extend to you my best wishes."

WHERE ORGANIZED EMPLOYEES HELP SUPPLY MEDICAL CARE*

FOR almost a half century the Northern Pacific Railway has taken an active part in the industrial hospitalization of its employees. As one of the pioneers in this social activity it organized the Northern Pacific Beneficial Association in 1881 for the benefit of its sick and injured employees and built its first hospital in Missoula, Mont., in 1883. Today the association owns and operates four hospitals for its employees of the central division, located at the terminals, Missoula, Tacoma, Wash., St. Paul, Minn., and Glendive, Mont., and a small emergency hospital at Staples, Minn.

The beneficial association includes all the employees of the railway serving the central division who share the benefits and help defray the expenses of hospital care, medical and nursing services of the association. The monthly dues, which amount to 1 per cent of the individual's earnings, are deducted from the salaries of employees. The sum is limited by observing a minimum of seventy-five cents and a maximum of $1.50 monthly.

The benefits of the association are also extended to the dependent members of the families of employees who are admitted to the hospital as pay patients at the nominal rate. A sum of $5,000 monthly is also contributed by the Northern Pacific Railway, which sum is presumed to cover medical care and hospitalization of employees injured on duty. In addition the railroad furnishes transportation and other services. The employees of the four hospitals are also members of the association.

The monthly dues entitle the employees to complete hospital service, also treatment at home or in the office of the local surgeons in the employ of the association and $75 toward burial, at the time of death. Services also include all medicine and mechanical appliances, such as bandages, supports, spectacles, crutches and artificial limbs. Stretchers and first-aid supplies are furnished at terminals and shops. Every employee, regardless of the amount of his dues, is entitled to all the care his case requires without additional cost, and no preference is given with respect to the position held by the patient in the employment of the railroad.

Contributing members are given preference as to hospital and medical service. Families of contributing members are given next consideration and thereafter the association furnishes service to the

The picture at the top of the page is the Tacoma, Wash., unit of the Northern Pacific Beneficial Association Hospitals. Above is the unit at Glendive, Mont.

*Acknowledgement is made to H. B. Smith, president of the association for illustrations and information furnished for the article.

general public insofar as facilities and space will permit. The hospital rate for wards having four or more beds is from $2 to $3 per day, and private rooms from $3 to $5 per day. In addition to the hospitalization furnished, patients are treated at their homes or at the office of local surgeons and specialists.

For hospitalization purposes the central division of the Northern Pacific road is subdivided into four districts, namely, the St. Paul district, extending from St. Paul to Jamestown, N. D.; the Glendive district, from Jamestown to Laurel, Mont.; the Missoula district, from Laurel, Mont., to Pasco, Wash., and the Tacoma district, from Pasco, Wash., to Portland, Ore.

The four hospitals are under the direction of a board of managers consisting of twenty-four members, fifteen elected by the employees and nine appointed by the vice-president of the road. The board has general authority and supervision of the association, the chief surgeon of each hospital has direct supervision over his respective hospital district. The president is the executive head of the association and is in charge of all business and operating affairs of the association and is thus responsible to the board of managers. The chief surgeons report directly to the president. The St. Paul and Tacoma hospitals employ a superintendent in charge of the business management.

The purchasing of equipment and supplies for the four hospitals is handled through the general office of the association in St. Paul, except daily food and other supplies required in emergency. All hospital equipment and supplies are standardized and a store department is maintained in St. Paul, from which supplies are distributed by requisition to each hospital.

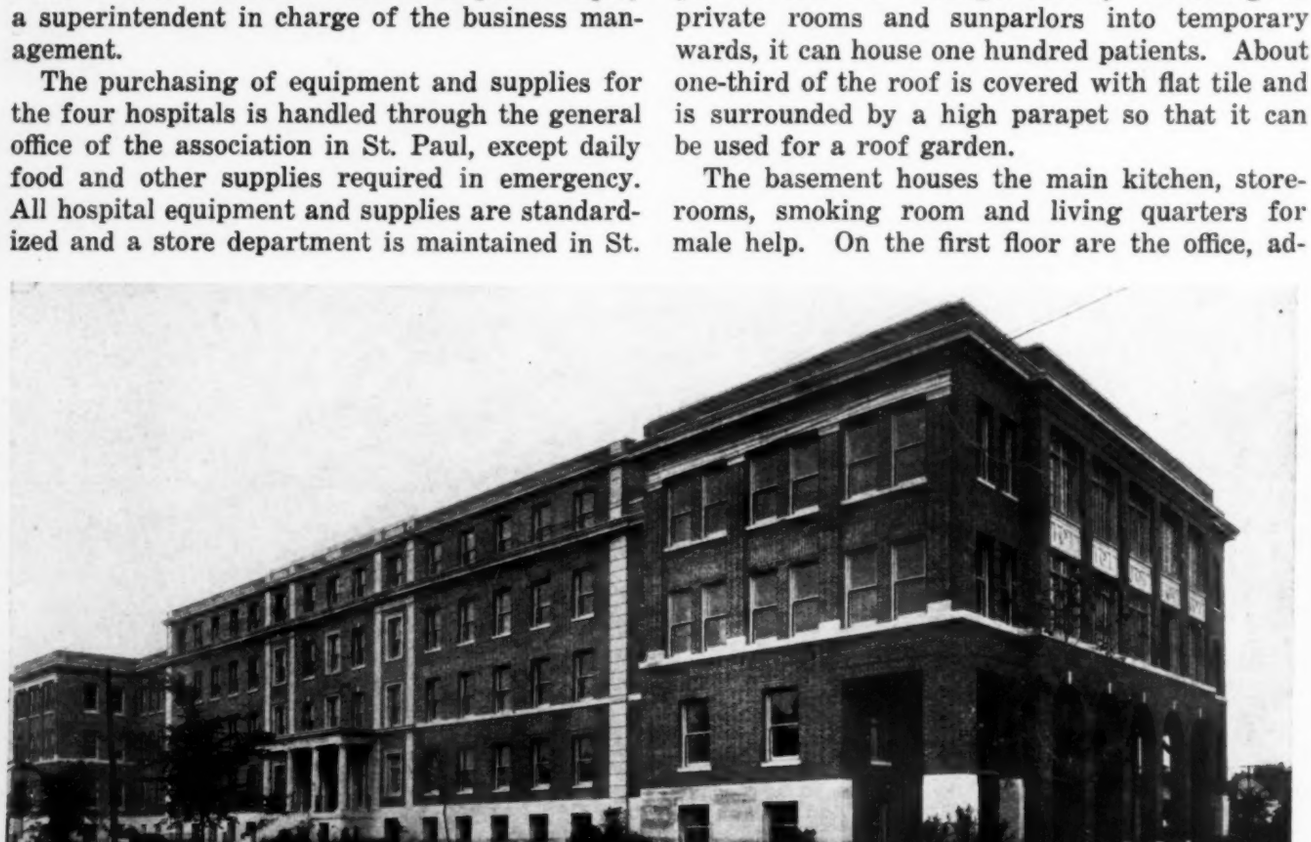
A full-time staff of physicians, surgeons, physiotherapy, x-ray and laboratory technicians, nurses and others are employed in each hospital. A medical staff of 390 physicians, surgeons, specialists and consultants is also located at various points along the line of the Northern Pacific Railway.

In cases of serious accident or illness, where patients are unable to travel to an association hospital, they are placed in the nearest local hospital and treated at the expense of the association until such time as they are able to be transported to the regular association hospital.

As previously stated, the first hospital, the Missoula unit, was built in 1883 and was replaced by a similar structure nine years later when the original building was destroyed by fire. In 1902 an addition to house forty patients was constructed, and subsequently the hospital has had a number of additions, including a nurses' home, power plant and laundry. In 1916 the present three-story building was constructed on the original site, the old buildings being torn down because they were no longer safe for occupancy.

The new building accommodates seventy-five patients and is so arranged that by converting the private rooms and sunparlors into temporary wards, it can house one hundred patients. About one-third of the roof is covered with flat tile and is surrounded by a high parapet so that it can be used for a roof garden.

The basement houses the main kitchen, storerooms, smoking room and living quarters for male help. On the first floor are the office, ad-



The St. Paul, Minn., unit, the front view of which is shown here, is the largest of the units.

The hospital and surgeon's residence (left) of the Missoula, Mont., unit.

ministration rooms, staff dining room, drug room, laboratory and intern's suites.

The second and third floors are similar in arrangement, each containing small wards, single and double rooms, diet kitchen and utility and bathrooms. At the east end of each of these floors is the sun room which is so arranged that it may be converted into an emergency ward.

The fourth floor contains the operating room, sterilizing and dressing rooms, sewing room, storeroom and quarters for female help, waitresses and cooks.

In 1888 the St. Paul unit, the largest hospital, now having a capacity of 225 beds, was built. As this hospital serves the largest territory, its equipment is necessarily on a larger scale and its services are more varied. This hospital is the only one of the group that maintains a nurse training school.

The Northern Pacific Beneficial Association Hospital, together with the University of Minnesota Hospital, the Minneapolis General Hospital, Minneapolis, and the Charles T. Miller, Hospital, St. Paul, is affiliated with the University of Minnesota School of Nursing. Its nursing service is thus conducted under a uniform system with that of each member of this group of institutions, and serves as a laboratory for the education of the student nurse. Both three and five-year courses are offered, the latter course entitling graduates to the university degree of bachelor of science as well as the nursing degree. The students are assigned to one special hospital for principal residence but rotate to special services in other institutions in the group.

The hospital at Tacoma, Wash., having 130 beds, was built in 1905, the Glendive hospital, with a sixty-bed capacity, in 1912. Subsequently each of the hospitals has been enlarged to meet the demands of a steadily increasing number of patients.

A new building was recently completed at the Glendive unit. The addition included two new utility rooms, hydrotherapy rooms, four single bedrooms, ten clothes closets and enlarged toilet facilities.

Extensive repairs are also being made at the Tacoma Hospital, including reconstruction of the north wing.

The total investment in physical properties to date, including land, buildings and equipment is $1,560,500; the receipts from all sources in 1925 were $633,661.87, and the total operating expenses, $543,274.39.

Some conception of the volume of work that is being done at the hospitals can be gained from the following statements: During 1925 21,842 patients were cared for in the hospitals and 47,954 treated in their homes and physicians' offices. This was an increase of 8.1 per cent over the number treated in 1920 and an increase of 213.2 per cent over the number treated in 1900.

Although the majority of cases received into the hospitals are accident, the annual reports disclose a surprising variety of diseases treated. About 14 per cent of the cases are emergency, and the average stay per patient is twelve days. During 1925, 78 per cent of the patients treated were men, 20 per cent women and 2 per cent children.

The Northern Pacific Beneficial Association is one of the leading institutions of this kind in existence and, according to H. B. Smith, president of the association, it is justifying its existence many times over in its services to employees and to the railroad in securing the proper treatment by competent physicians and surgeons chosen by the association to devote their services exclusively to restoring to health, sick and injured employees.

A STUDY OF HOSPITAL FIRE INSURANCE

ANY kind of patent medicine is a cure-all for the average person until that person becomes sick. Then he sends for a doctor who gives him a prescription which may be all mystery except the directions for taking and the doctor's bill, which are usually understood, especially the latter. Just so with fire insurance. Any kind of insurance meets with public approval until the need for reimbursement comes; then mistakes are discovered, mistakes usually due to an endeavor to save the cost of the service of a competent local agent.

There is no mystery about fire insurance. Although there may be several different plans of operation, the final intent of all is to indemnify the policyholder who sustains a fire loss upon the property insured.

The first form of insurance was marine insurance and this was more along the line of the present day "reciprocal exchange" where a number of men engaged in the same line of trade became jointly liable for the shipping mishaps of each other. This plan proved unsatisfactory because the loss fell upon one trade and thus it withdrew too much of the capital structure and cramped the trade itself.

The next step, also marine, was "individual underwriters." This was the issuance of a single contract or policy to one assured for a total sum, which was guaranteed by individuals who became signers of, and individually guaranteed, several smaller amounts. This liability was not collective but individual, and at times some of the signers failed to make good. Of these Benjamin Franklin said, "Insurers fail much." While this plan is still used and known as "Underwriters at Lloyds," it is today safeguarded by requiring the underwriter to deposit substantial securities and bonds to guarantee the obligations that he must assume.

The next form was what is known as assessment mutual insurance which proved a failure in the great London fire because practically all of the members met the same fate and had neither property to insure nor funds to meet assessments.

This form of insurance is used today but is impractical in congested sections where conflagrations are liable to occur. It has, however, been reasonably successful in farming communities where comparatively small amounts are likely to be involved in the loss from a single fire.

As the result of the great London fire in the seventeenth century, a demand was created for a more substantial system of indemnity, backed by capital, in such form as to guarantee payment of losses without calling upon the sufferer at the time when he was least able to pay.

Here the stock company entered the picture. Capital did not rush wildly into this hazardous business; it entered slowly and did not provide capacity equal to the needs of the public for a great many years. It was discovered by costly experience that capital without substantial surplus would not suffice; that both strong capital and heavy surplus would not fill the bill without adequate reserves. The proof of the soundness of the American stock fire insurance company is seen in their loss payments in the San Francisco fire, when practically all of them met their tremendous obligations promptly and in a creditable manner.

During the period when there was a shortage of capacity there developed another form of high grade mutual insurance which is illustrated in what is known as the New England Mutuals. In this case a substantial overcharge is collected as a premium until a reserve or surplus fund is accumulated to guarantee policyholders against sudden and unexpected assessments for large amounts.

These companies are substantial, and while there is little probability of any loss causing them to assess beyond their by-law limits of three to

What the Hospital Needs

DURING the past three years THE MODERN HOSPITAL has made an exhaustive study of fire insurance, believing it to be an important feature of hospital maintenance, about which there is more or less uncertainty in the minds of many having to do with this hospital expense.

While to those well informed on insurance matters this report may seem academic, yet for many it may help to clarify the situation and give a definite idea of the various companies or associations engaged in writing insurance, the obligations from and to each, and how the rates of premiums are determined. It presents our view of the kind of fire insurance best suited to hospital needs.

five times the annual premium, nevertheless the fact remains that there is a liability to pay, and, failing payment, an agreement to accept a lesser amount than the loss, if the assessment fails to provide funds to pay all losses and expenses.

Lastly we have the reciprocals or indemnity exchange, patterned after the original insurers of early times, controlled by an underwriter holding power of attorney. He receives a certain part of the premiums as his compensation, and collects the losses from the many in the same or allied trades to indemnify the few. Some of these have attained marked success; others have been dismal failures.

In the final analysis, insurance may be properly classified in two groups—mutual companies whose income is based upon some form of assessment, either limited or unlimited in its amount as may be provided by the laws of the state in which it is organized; and stock companies whose capital, surplus and reserve stand as the security to their policy contracts.

Fire insurance rates have of late years become somewhat of a state regulated affair, due to laws commonly called "anti-discriminatory" laws. This means that each risk of the same construction, the same occupancy and under identical fire protection must rate the same in all localities of the state.

Distribute Fire Loss Equitably

Whatever may be said against these laws, it is self-evident that they distribute the fire loss in the way of premium charge equitably over the entire property values of the state. These schedules are the measuring stick of fire insurance rates, and in order to apply them it is necessary to have a foundation or basis rate applicable to the whole state. This basis rate is not founded upon an ideal risk, but rather upon a standard building or risk of ordinary construction without fire protection and without occupancy, and these basis rates run from forty cents to seventy cents, depending upon the loss experience of the particular state. All rates are based upon the charge for $100 of fire insurance for one year. The schedule starts out with its basis rate, and for each point of superior construction, and for each feature of fire prevention and fire extinguishment, credits are deducted from the basis rate, while for each increase in danger, whether by hazardous occupancy or defective construction, there is a percentage charge to the basis rate. There is a further credit for a guarantee on the part of the property owner that he will carry a given percentage of insurance to value (usually 80 per cent), and again credits are given to the hospital class of approximately 20 per cent for the writing of the risk for three or five years.

There are after charges applied to the risk for dangerous features that can be removed easily. Take for instance, faulty electric wiring, gas stoves with rubber tube connections or the storing of inflammable oils. These charges are usually made excessive, not with the expectation of collecting the premium but rather for the purpose of forcing the elimination of such hazards from the risk. Contrary to the general belief that insurance companies care little about the hazards so long as they collect the rates, we find that the higher the rate, the more difficult it is to get the companies to write substantial lines, and in fact, our study of the situation demonstrates that the companies are using every effort in their power to reduce the fire loss ratio by forcing the removal of these dangerous and avoidable defects.

Rates Made by Bureaus

In practically all of the states, fire insurance rates are made by rating bureaus established by law, and in most states these laws require all companies, whether stock or mutual to maintain a rating bureau or to be a member of an already organized bureau. Since the making of rates is one of the heavy expenses of companies, it is impractical to maintain more than one bureau, and therefore, in essence, all companies use the rate estimates promulgated by the bureau in the respective state. This system of rating to a large extent permits the owner of property to make his own rate. If he is careful in the preparation of his building plans, using the facilities at his command, he can easily eliminate many features that will become a permanent charge in his insurance rate should they be allowed to remain in his plans. He can remove many if not all of the after charges; in the selection of his site he can be careful to prevent bad exposures from his neighbors, and by careful consultation and the use of insurance engineers who are made available by the rating bureaus and by individual companies, and who are maintained by THE MODERN HOSPITAL as a free service to its subscribers, he can practically make his own rate.

Mutual companies in determining their rate charge, use these rates as the basis of their estimated premiums, and if their final premium cost is less than that of the stock companies, it is usually in the shape of a rebate or dividend at the close of the policy term. If this dividend does not represent the entire amount of saving over and above the losses and expenses of the mutual company, the difference is used for the purpose of accumulating a guarantee fund, and while this

acts as a safety valve so long as your insurance remains in that particular company, yet in the event of your retirement from that company it really acts as capital stock to future policyholders in which you have no particular interest. The dividend to you acts in identically the same way as the dividend paid by stock companies to their stockholders, and this is proper, because as a matter of fact in a mutual company the policyholder is a stockholder; his name is back of every policy issued, to the extent of his legal guarantees, and naturally he is entitled to a dividend, and a more substantial one than a stockholder, because a stockholder is not liable for excessive and unfortunate conflagrations, but in a mutual company the policyholder is liable, in some states for unlimited amounts and in others for limited assessments.

Minimum Capital Required

Stock companies are required to maintain a capital, usually a minimum of $200,000. In some states they are required to have a surplus of a given amount and in all states they are required to carry a reserve equal to the pro rata of the premium for the remainder of the term of each policy contract. At the time these laws were passed, this sum of $200,000 capital seemed adequate, but as business increased the disposition has been voluntarily to increase this sum substantially, and few of the representative companies remain upon any such small capital basis. They are more frequently found with capitals ranging from $500,000 to $20,000,000, many of them maintaining a reserve surplus several times larger than their capital.

With these companies there is a fixed premium charge. There is no assessment and no liability on the part of the policyholder.

Fire insurance companies are engaged in a hazardous undertaking. Their stockholders who have furnished the capital, and have largely contributed the surplus, are entitled to more than an ordinary interest return by reason of their hazardous undertaking. It is incumbent upon the policyholder to see that these companies receive an equitable rate in order that they may be kept in a strong financial position and be able to meet all demands upon them. Investigation clearly indicates that they have not received any excessive amount of profit. Few, if any of them, have made 5 per cent upon their turnover.

Some criticism has been made of the expense ratio of these companies, but even here such a large portion of the expense is used for the purpose of eliminating fire hazard and in other ways serving the public in reducing the cost of fire insurance, that it would seem that the expense was fully justified.

Distribution of liability is a great factor, both in stock and mutual insurance. To be successful, both classes must have an income covering a great range of territory, and a wide distribution of classes. Otherwise, unfortunate weather conditions, such as long dry spells, might be disastrous to any company concentrating its business in a given section, or to one assuming too great a liability upon a single risk, or in any given territory like a town or city, and this feature is carefully guarded by all companies, whether stock or mutual.

There are in both the stock and mutual ranks, a few companies devoting their entire activities to certain classes. This is particularly true of what is known as the New England Mutuals who compete solely for sprinklered risks. There are a few small stock companies engaged in insuring certain special classes, but even here they are only participators and do not attempt to cover the entire liability of a single risk because of their lack of carrying capacity, insufficient funds and reserves. There is no outstanding example of successful operation among such stock companies, although promoters have frequently advocated this plan of specialized insurance companies.

Insurance in stock companies is undoubtedly the popular method of buying insurance coverage, since approximately 85 per cent of all the premiums for fire insurance in the United States is paid to the stock companies, leaving only about 15 per cent of all the premiums distributed among the other classes of companies, such as mutuals and reciprocals.

Mutual Fire Insurance

Mutual fire insurance has an appeal because of the possibilities of saving, but, viewed from a hospital angle, it is impractical, first, because there is such concentration of values in our larger institutions as to make complete coverage rather doubtful, but this is not the controlling feature that makes it impractical. It is more a question of the legality of such a move. THE MODERN HOSPITAL has obtained the opinion of a firm of insurance lawyers of high standing in this country, and we believe this opinion, which follows, is of much importance to hospital trustees:

"Hospitals as a general rule are organized as charitable institutions and as corporations not for pecuniary profit, and are generally if not universally regarded and held in law to be public charitable institutions operating public charities. For this reason, the property held and owned by a hospital, and all moneys received by it, are im-

pressed with the trust, and held and controlled by the trustees in trust for the purposes of conducting such charity and cannot be lawfully diverted to any other use.

"We are of the opinion, therefore, that while the trustees or officers of a hospital have authority to insure the property of a hospital against the hazards of fire or other casualty, and perhaps in the exercise of reasonable care in the management and preservation of the property it would be their duty so to do, yet they would have no authority to insure such property in a mutual company and thus make the hospital a member of the mutual company and an insurer of the property of other members of the mutual company. They have no authority in our opinion thus to embark in the business of insurance and subject trust property, under their management and control, to the hazards incident to such business and the liability of being assessed for the payment of losses and expenses, possibly far in excess of anything that might have been anticipated in case of the company becoming insolvent and the winding up of its affairs by receivership proceedings.

"It has been held that an agent in charge of property of his principal, although authorized to obtain insurance upon such property in the name of this principal against loss by fire, has no authority to insure such property in a mutual insurance company and thus subject his principal to the liabilities of an insurer as a member of such mutual company, and it was held in the case of Hite v. Madison, 26 N. Y., 117, that when a deputy sheriff has made a levy and seized property in the name of the sheriff and had custody of the same, while he had authority to insure the property against loss by fire, he did not possess authority to obtain such insurance in a mutual company.

Officers May Not Insure Property

"For the reasons stated, we are of the opinion that the trustees or other officers of a charitable hospital may not lawfully insure the property of the hospital in a mutual fire insurance company."

If this legal opinion is sound, its acceptance would exclude at least one-third in number, and over one-half in value, of 6778 hospitals of this country, leaving only state, city, county, federal and partnership hospitals, or 4518. It is believed that another third, represented by city, county, state and federal governments, are not allowed to insure through mutuals either. In some cases the state and the federal governments carry their own insurance, eliminating 18 per cent and bringing the total number eligible to less than 3400 hospitals. The 33⅓ per cent hospitals represented by individual or partnership owners are in most cases small and housed in former residences. Very few of them own buildings worth more than from $10,000 to $40,000. If they all were insurable for as much as $50,000 the total insurance would not be more than $170,000,000, or approximately 17 per cent of the amount now carried by hospitals, and it is this class that tends to increase the average rates of the hospital class, although it does not increase the premium paid by the high grade risk.

Mutual Insurance Impractical

Another reason may here be pointed out why mutual fire insurance for hospitals is not practical. In every city the fire insurance agents are rather substantial citizens who have an influence among the other citizens. As long as the hospitals continue to draw their support from the communities they serve, they will be dependent upon every citizen and particularly upon those who mold public opinion. It is doubtful if any insurance agent at the present time realizes a profit on the insurance he carries on hospitals and other similar public institutions. As a citizen of the community he is obligated to contribute and to urge others to contribute to hospitals. Therefore even if it were possible for hospitals to enter into a mutual agreement, it would be against policy for them to do so because they would alienate many of their staunchest supporters and would break down the foundation of every eleemosynary institution—good will.

Articles have appeared in both THE MODERN HOSPITAL and THE MODERN HOSPITAL YEAR BOOK in which means of reducing insurance premiums have been outlined. THE MODERN HOSPITAL has maintained a fire insurance engineering department and many hospitals have availed themselves of this service which is rendered without cost to the hospital served. By following the recommendations of our engineers substantial rate reductions have been effected. We believe that there is a great field for this service, which is still at the disposal of hospital authorities. We believe that there is need for more cooperation on the part of hospitals looking toward the improvement of their risks, and the securing of proper recognition of these improved conditions in a revision of the basis rates on which they are written.

Our investigation of this subject convinces us that the greatest good can be accomplished by the concentration of the insurance of an individual hospital in the hands of one high grade local agent in its community, even though the trustees may deem it advisable to instruct this agent to

place a portion of the insurance with other agents. By this means you place a responsibility upon this agent to see that every feature of construction and upkeep is constantly watched. Do not overlook the fact that the local agent in your community is an important factor. By reason of his large acquaintance he is usually the first man called upon to help you with your drives; he is usually found an active supporter of hospitals and well versed in the necessities of public service.

Do not think that when the local agent has written your insurance and collected the bill he has earned his compensation. He does not earn this compensation until your policy has expired and must render service during the whole period. His compensation for this service is usually well earned. He is an important factor in hospital insurance and can be of great service to you and the institution over which you have supervision.

ENGLISH HOSPITALS TENDING AWAY FROM PAVILION TYPE

Thomas A. Pole, architect, London, England, describes hospital building in England from 1900-1925, in "One Hundred Years of Hospital Planning," in the "Seventh Annual Report of the Voluntary Hospitals of Great Britain," as follows:

"The general planning of hospitals shows little change from the preceding period. On open sites the pavilion type of plan is mostly favored, and on restricted sites in the large towns, a modified pavilion type is used, and the number of the floors increased. The planning of wards, kitchens, stores and other separate buildings varies but little, but the arrangement of theater blocks is generally improved. The period is noticeable for erection of buildings devoted to various types of research work and for the erection of separate blocks for electrical, x-ray, radium, massage and other forms of new treatment.

"Before passing to details of the work of this period, reference must be made to the planning of two of the most recent hospitals, both at present under construction, a new Guardians' hospital at Davyhulme, near Manchester, and the Torquay General Hospital. In both of these plans it is noticeable that the pavilion type of plan so long and so successfully employed, has been superseded, and the buildings, including the ward blocks, are more concentrated. It is not a good arrangement, the site in each case being ample, but probably the high cost of buildings these days demanded the concentration.

"I would like to make some reference to two hospitals abroad, at present partly built, namely, the City Hospital, Genoa, Italy, and the new Civil Hospital, Lyons, France. The tendency of the planning of both these is to depart from the pavilion type altogether and form the hospital of a number of different blocks, each apparently as a self-contained unit having its own wards, auxiliary rooms, offices and kitchens. The blocks are connected by subways (for essential services), and covered ways, there being, of course, one central group of offices. Each block has its own grounds, gardens, and layout, but the arrangement is obviously a costly one both as regards the buildings and the area of the site required."

EARTHQUAKES INCREASE BURDEN OF NEAR EAST HOSPITALS

In spite of disruption by the recent earthquakes in the Near East, the hospitals are caring for large numbers of injured people in addition to the sick refugees and trachoma cases. The general hospital at Leninakan, of 600 beds, which serves the largest orphanage housing 6,000 children, is one that took a commemorable part in relief

Near East Relief Trachoma Hospital at Leninakan.

work during the earthquakes. Under the direction of Dr. Walter Sisson, formerly of Wauseon, Ohio, the occupants of the building were transported the night of the earthquake to cots in the open wheatfields, where the patients stayed until the weather became so cold that they were foced to seek shelter in the barracks. The hospital proper was occupied by the 400 patients from the city hospital, which collapsed in the earthquake, and scores of injured natives.

The forty-five Near East hospitals are old buildings that have been converted into temporary hospitals. The only exception is the orphanage on the island of Syra in the Aegean Sea, which claims the distinction of having the one Near East hospital that has running water in it.

Because of the prevalence of trachoma in Armenia, some of the hospitals are forced to have special isolated rooms and the hospital at Leninakan has a special trachoma hospital. The clinic work is so extensive that as many as 92,000 patients a week are treated at this hospital.

At Antilyas, just north of Beirut, Syria, the hospital is housed in a former silk mill. South of Beirut, at the "Bird's Nest," is an open air hospital for use in warm weather.

PREVENTING HEART DISEASE BY EARLY DETECTION

General hospitals, dispensaries and practitioners of medicine can contribute largely to the prevention of heart disease by a quicker detection of heart lesions and lowered work capacity among the patients who pass under their inspection. Convalescent care to prevent decompensation as well as during periods of recovery is not sufficiently availed of. Brief periods—seven to ten days—of rest for apparently compensating heart patients serve a valuable preventive function and permit long postponement of the period of complete disability.

Admissions to a hospital from dispensary or private ambulatory office care should be arranged for at a much earlier stage of disability from heart disease than is the present practice.

Although much has been done to meet the obvious needs of convalescent heart patients direct from hospitals there is nothing approaching sufficient provision for the heart cripple, the permanently incapacitated dependent invalid who in no way can be restored to tolerate conditions of life outside of hospital care.

CONDUCTING A CLINICAL CONFERENCE AT WILLARD PARKER HOSPITAL

By Arthur W. Bingham, M.D., President, Medical Board, and Joseph J. Gallagher, Lay Assistant Director, Willard Parker Hospital,
New York

THE object of the clinical conference conducted monthly at the Willard Parker Hospital, New York, is to promote study, agreement and harmonious cooperation in the hospital.

A prepared statement of facts in regard to the condition of patients on admission to the hospital, correlated with results obtained by preventive and curative treatment and compared with previous years' experiences, presented. Personal reports by those on duty and scientific information by the specialists of the research, x-ray and pathological laboratories are contributed.

By discussion of such evidence in open conference individual responsibility is increased, a consistent and uniform policy is developed and a spirit of service to the patients and loyalty to the hospital is encouraged.

The conference is held at the hospital every fourth Tuesday, and is presided over by a chairman who is appointed by the president of the medical board at the January meeting each year. The monthly program is sent to the New York Academy of Medicine for the information of those interested. Any public health worker is welcome to attend. Members of the following staffs of the hospital are required to be present:

Consulting physicians, surgeons, specialists; attending physicians, surgeons and specialists; assistant attending physicians, surgeons and specialists; medical director of hospital; medical superintendent; resident physicians; pathologist; hospital physicians; interns; director of nursing service; superintendent of nurses; assistant superintendents of nurses in charge of services; social service nurses, and medical record clerk.

Chairman in Charge of Program

It is the duty of the chairman of the conference to prepare a program for each meeting, and in this he is guided by the character of the service and unusual conditions occurring during the month.

The conference considers the patient terminations of the preceding month and usually includes the following:

1. Report of each service by the resident physician in charge.
   Comment by the attending and assistant attending physicians.
   General discussion.
2. Statistical analysis of the hospital service for the month by the vice-chairman of the medical board.
3. Discussion of the deaths and autopsy reports.
4. Discussion of problem cases arising on the services.
5. Reports on research work.
6. Reports on teaching.
7. Discussion of the completeness and adequacy of the medical histories.

Under number 1, we have the personal reports of the men on duty and such comments and criticisms as are brought out in discussion. The stenographer's report of the conference is forwarded to the president of the medical board and

Willard Parker Hospital

Deaths of June, 1926

Case No.	Cause of Death: Primary	Cause of Death: Contributing	Autopsy Number	Anatomical Diagnosis
1782	Diphtheria			
1873	Diphtheria			
1913	Diphtheria			
1731	Diphtheria,	Myocarditis		
1711	Diphtheria,	Myocarditis		
1700	Diphtheria,	Myocarditis		
1706	Diphtheria,	Myocarditis		
1826	Diphtheria,	Myocarditis		
1906	Diphtheria,	Myocarditis		
1846	Postdiphtheria Paralysis			
1653	Diphtheria		249	Toxic diphtheria nasal, tonsillar, pharengeal.
1695	Diphtheria		250	Nasal, tonsillar, tracheobronchial, laryngeal diphtheria, B. P.
1761	Diphtheria		258	Toxic diphtheria and myocarditis. passive congestion of liver, spleen, lungs & kidneys. pulmonary edema and atelectasis.
1747	Diphtheria		256	Toxic diphtheria, cardiac failure, Toxic myocarditis, congestion of liver, lungs, spleen & kidneys.
1690	Diphtheria,	Bronchopneumonia	264	Bilateral purulent otitis media, rickets, malnutrition.
1691	Diphtheria,	Bronchopneumonia	263	Bilateral purulent otitis media, B. P.
1770	Diphtheria,	Bronchopneumonia	259	Toxic diphtheria, Bronchopneumonia.
1652	Diphtheria,	Myocarditis	251	Diphtheria, B. P. Passive congestion of viscera. Pulmonary emphysema and edema, Congestion of liver, spleen, kidneys, toxic nephritis.
1719	Diphtheria,	Myocarditis	260	Diphtheria, toxic myocarditis, right heart failure, Congestion of viscera.
1874	Diphtheria,	Myocarditis	265	Diphtheria, right-sided heart failure. Purulent bronchitis. Chronic adhesive pleuritis, bilateral. Acute laryngitis with supraglottic edema.
1668	Postdiphtheritic Paralysis B. P.		252	Cardiac decompensation. Toxic myocarditis. Congestion of viscera, liver, spleen kidneys. Ascites. Pleurisy with effusion, In toxic nephritis. Bronchopneu. with massive consolidation of left lower lobe and left upper lobes, base.

Analysis of Deaths (Within 48 Hours in Hospital—Over 48 Hours in Hospital)

	Diphtheria 1922		1923		1924		1925		1926		Scarlet Fever 1922		1923		1924		1925		1926	
	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.
January	8	21	8	10	8	8	11	8	5	4	6	1	2	3	..	1	..	2	..	..
February	10	40	4	6	7	8	7	7	3	2	4	8	..	3	..	3	1	..	1	..
March	37	12	6	6	10	5	12	8	2	4	5	11	2	3	1	2	3	1	..	..
April	14	32	12	9	5	10	12	16	5	5	1	9	3	4	..	..	2	2	2	2
May	10	24	11	10	11	7	17	15	7	4	..	7	..	2	..	1	..	2	2	2
June	11	9	5	18	5	6	15	12	10	12	1	5	..	1	..	..	..	..	..	1
	90	138	46	59	46	44	74	66	32	31	17	41	7	16	1	7	6	7	5	5

	Measles 1922		1923		1924		1925		1926		Observation 1922		1923		1924		1925		1926	
	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.	W.	O.
January	35	3	..	2	2	5	..	..	1	6	..	1	..	..	5	3	2	5	2	4
February	1	25	2	3	5	14	..	..	4	17	2	13	8	5	4	2	3	5	3	6
March	5	25	..	3	5	20	..	..	8	23	5	23	1	4	3	5	3	3	2	3
April	5	51	1	8	5	20	2	8	4	21	11	6	2	2	3	8	3	4	4	6
May	6	39	7	12	1	13	2	9	4	13	2	9	1	1	4	7	5	3	2	4
June	2	31	3	11	—	11	1	5	4	6	5	5	3	3	3	3	2	1	..	1
	54	194	13	39	18	83	5	22	25	86	25	57	15	15	22	28	18	21	13	24

Secondary Infections

	Primary Cases	2nd. Inf.	Infected Bef. Adm.	Per Cent	Infected Aft. Adm.	Per Cent	Total Per Cent
1922	4598	154	67	1.45	87	1.88	3.3
1923	3622	105	33	.9	72	1.9	2.8
1924	3512	73	46	1.3	27	.76	2.0
1925	3574	65	28	.78	37	1.03	1.81
1926	2168	39	18	.83	21	.96	1.79
6 Mos.							

Secondary Infections—June, 1926

Primary Infections	Cases Treated	Infected Bef. Adm.	Per Cent	Infected Aft. Adm.	Per Cent	Total Per Cent
Diphtheria	187	..	..	2	1.0	1.0
Scarlet Fever	116	2	1.7	5	4.3	6.0
Measles	103	2	1.9	1	.97	2.9
Observation	33	..	..	..	..	..
	439	4	.91	8	1.8	2.7

Service	Bef. Adm.	Aft. Adm.
Diphtheria	1 diphtheria	1 measles
Scarlet Fever	1 measles	1 varicella
Measles	1 scarlet F.	4 measles
Observation	1 varicella	1 diphtheria

Intubations, 1926

	Jan. C.	D.	Feb. C.	D.	Mar. C.	D.	Apr. C.	D.	May C.	D.	June C.	D.	Total Cases	Deaths	Per Cent
Laryngeal diphtheria	13	2	12	2	7	1	9	2	9	4	13	4	63	15	23.8
Laryngeal diphtheria with measles	..	..	..	..	1	1	1	1	3	2	..	..	5	4	80.
Croup with measles	..	..	..	..	4	2	2	1	3	3	1	1	10	7	70.
Bron. Pneu. with measles	..	..	2	2	..	..	1	1	..	..	..	..	3	3	100.
Laryn. Dipth. with S. F.	..	..	..	..	..	..	1	1	..	..	..	..	1	1	100.
Catarrhal laryngitis alone	1	..	6	6	4	2	4	3	..	..	..	..	15	11	73.3
Pneumonia	..	..	..	..	..	..	1	1	..	..	..	..	1	1	100.
Laryngeal stenosis	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..
Edema of glottis	..	..	..	..	1	1	..	..	..	..	..	..	1	1	100.
Totals	14	2	20	10	17	7	19	10	16	9	14	5	100	43	43.

Intubations (Diphtheria Service)

	Intubated	Deaths	Per Cent
1922	234	126	54.0
1923	132	54	40.9
1924	165	59	35.8
1925	150	51	34.
1926	63	15	23.8

Intubations (All Services)

	Intubated	Deaths	Per Cent
1925	178	65	36.5
1926	100	43	43.
6 Mos.			

such matters as require action by the medical board are referred for attention.

Under number 2, we have complete tables giving the results obtained on each service together with all pertinent information for study. This analysis is used as our yard stick for measuring the efficacy of our service. The character of medical and nursing service and the efficiency of hospital administration for the care of patients may be measured properly by a study of the variations

of results that are obtained from year to year.

The following is a sample of the statistical analysis studied:

Under number 3, we have a full and frank discussion of the causes of deaths with especial reference to acts of commission and omission. Frequently, the points brought out in these discussions are the basis for adopted policies.

Under number 4, we have for study generally, a subject in preventive medicine and it is assigned to a member of the staff who presents a short paper giving the salient points.

Under number 5, the chairman of the medical board's committee on research work personally reports on the progress of work in this field. Conclusions are referred to the medical board for action.

Under number 6, the chairman of the medical board's committee on medical education personally reports on the teaching done in the wards.

Under number 7, the chairman of the medical board's committee on medical histories presents his findings of the examination of a number of charts taken at random from the files.

From the foregoing, it will be seen that at these conferences a complete picture of the entire serv-

Willard Parker Hospital

Hospital Service	Cases 5 Mos.	Cases June	Cases Total Cases	Deaths 5 Mos.	Deaths June	Deaths Total Deaths	Autopsies 5 Mos.	Autopsies June	Autopsies Total Autop.
Diphtheria	465	131	596	41	22	63	12	12	24
Scarlet fever	143	47	190	9	1	10	1	..	1
Measles	971	86	1,057	101	10	111	32	7	39
Observation	150	20	170	36	1	37	13	1	14
	1,729	284	2,013	187	34	221	58	20	78

Mortality	Diphtheria Cases	Diphtheria Deaths	%	Scarlet Fever Cases	Scarlet Fever Deaths	%	Measles Cases	Measles Deaths	%		Service Cases	Service Deaths	Mortality %
6 Mos. 1922	1,063	228	21.4	654	58	8.8	1,036	248	23.9	1922	4,409	737	16.7
6 Mos. 1923	659	105	15.9	449	23	5.1	432	52	12.0	1923	3,402	284	8.3
6 Mos. 1924	639	90	14.0	375	8	2.1	864	101	11.6	1924	3,320	361	10.8
6 Mos. 1925	829	140	16.8	611	13	2.1	253	27	10.6	1925	3,380	314	9.2
6 Mos. 1926	596	63	10.5	190	10	5.2	1,057	111	10.5	1926	2,013	221	10.9

Willard Parker Hospital

MONTHLY SERVICE SURVEY

Primary Disease Scarlet Fever Service June, 1926

Day of Illness admitted		1st	2nd	3rd	4th	5th	6th	Ltr.	Tl.	Crd.	Died	Autopsy %
No. of Cases		3	13	11	7	3	3	7	47	46	1	2.1
Antitoxin	1st day	1	..	..	..	..	..	..	1	..	..	..
	2nd day	..	6	..	..	..	..	..	6	..	..	..
	3rd day	..	1	6	..	..	..	..	7	..	..	..
	4th day	..	..	..	2	..	..	..	2	..	..	..
	5th day	..	..	..	..	..	..	..	0	..	..	..
	6th day	..	..	..	..	..	1	..	1	..	..	..
	Later	..	..	..	..	..	..	..	0	..	..	..
Age Group	1st 6 mos.	..	..	..	..	..	..	..	..	..	..	..
	2nd 6 mos.	..	..	..	..	..	..	..	..	..	..	..
	2nd year	..	..	1	1	..	..	..	2	2	..	..
	3rd year	..	2	1	1	..	..	2	6	6	..	..
	4th year	..	3	1	1	..	..	1	6	5	1	16.6
	5th year	1	1	1	..	..	..	1	4	4	..	..
	6-10 yr.	1	3	4	2	2	1	1	14	14	..	..
	Over 10th yr.	1	4	3	2	1	2	2	15	15	..	..
From	Home	3	10	10	6	3	2	6	40	39	1	2.5
	Hospitals	..	3	1	1	..	1	1	7	7	..	..
	Institutions	..	..	..	..	..	..	..	0	..	..	..
Sec. Inf.	Source inside	5	..	..	..	..	..	..	..	..	..	4.3
	Source outside	2	..	..	..	..	..	..	..	..	..	1.7
Operative treatment	Intubations	..	..	..	..	..	..	..	..	..	..	..
	Tracheotomy	..	..	..	..	..	..	..	..	..	..	..
	Mastoidectomy	..	..	..	1	..	1	1	3	2	1	33.3
	Sinus & Tonsil	1	..	..	..	..	..	..	..	1	..	..
	Other	..	1	..	..	..	..	1	..	2	..	..
Complicating infections	Bron. Pne. B.A.	..	..	..	..	..	..	..	..	..	..	..
	Bron. Pne. A.A.	..	..	..	..	..	..	..	..	..	..	..
	Sepsis B.A.	..	..	..	..	..	..	..	..	..	..	..
	Sepsis A.A.	..	..	..	..	..	..	1	..	..	1	100.
	Mastoid B.A.	..	..	..	..	..	..	1	1	..	1	100.
	Mastoid A.A.	..	..	..	1	..	1	..	2	2	..	..
	Nephritis B.A.	..	..	..	..	..	..	1	..	..	1	100.
	Nephritis A.A.	..	..	..	..	..	..	..	..	..	..	..
	Otitis B.A.	..	..	..	..	..	1	1	2	1	1	50.
	Otitis A.A.	..	1	..	2	..	..	..	3	3	..	..
	Other B.A.	2	11	10	7	2	3	7	42	..	..	..
	Other A.A.	1	..	..	..	..	..	..	1	..	..	..
No. of Deaths		..	..	..	..	..	..	1	..	..	..	2.1
Causes of Deaths Contribu.	Prim. Inf. only	..	..	..	..	..	..	..	..	..	..	..
	Sec. Inf.	..	..	..	..	..	..	..	..	..	..	..
	Bron. Pne.	..	..	..	..	..	..	..	..	..	..	..
	Sepsis	..	..	..	..	..	..	1	..	..	..	100.
	Operation	..	..	..	..	..	..	1	..	..	..	..
	Other	..	..	..	..	..	..	..	..	..	..	..

Average days' care for patients who recovered—32.3.
No. of patient hours—44,424.
No. of nursing hours—2,486½.

Willard Parker Hospital

MONTHLY SERVICE SURVEY

Primary Disease Measles Service June, 1926

Day of Illness admitted		1st	2nd	3rd	4th	5th	6th	Ltr.	Crd.	Tl.	Died	Autopsy %
No. of Cases		3	19	18	14	15	7	10	86	76	10	11.6
Antitoxin	1st day	1	..	..	..	..	..	..	1	1	..	..
	2nd day		3	..	..	..	..	..	3	3	..	..
	3rd day		1	..	..	..	..	..	1	1	..	..
	4th day		..	1	..	..	..	..	1	1	..	..
	5th day		1	..	..	1	..	..	2	1	1	50.
	6th day		1	1	..	..	1	..	3	3	..	..
	Later		..	1	4	5	2	6	18	15	3	16.6
Age Group	1st 6 mos.		1	..	..	..	..	..	1	1	..	..
	2nd 6 mos.		2	2	1	2	1	1	9	7	2	22.2
	2nd year		4	7	2	6	2	5	26	20	6	23.0
	3rd year	2	2	2	5	1	2	3	17	15	2	11.7
	4th year	1	6	..	2	1	2	..	12	12	..	..
	5th year		1	3	2	1	..	1	8	8	..	..
	6-10 yr.		1	2	1	2	..	..	6	6	..	..
	Over 10 yr.		2	2	1	2	..	..	7	7	..	..
From	Home	2	13	11	8	12	6	9	61	52	9	14.7
	Hospitals		4	5	6	2	..	..	17	17	..	..
	Institutions	1	2	2	..	1	1	1	8	7	1	12.5
Sec. Inf.	Source inside	1	..	..	..	..	..	..	..	..	..	.97
	Source outside	2	..	..	..	..	..	..	..	..	..	1.9
Operative treatment	Intubations B.A.		..	..	..	..	..	..	..	..	..	..
	Intubations A.A.		..	..	..	..	..	1	..	..	1	100.
	Tracheotomy		..	..	..	..	..	1	..	..	1	100.
	Mastoidectomy		..	1	..	1	..	1	3	3	..	..
	Sinus & Tonsil		..	..	1	..	..	..	..	1	..	..
	Other		..	3	3	2	..	2	10	9	1	10.
Complicating Infections	Bron. Pneu. A.A.		3	3	..	5	2	5	18	10	8	44.4
			1	3	..	1	..	2	7	5	2	28.5
	Sepsis B.A.		..	..	..	..	..	..	..	..	..	..
	Sepsis A.A.		..	..	..	..	..	..	..	..	..	..
	Mastoid B.A.		..	1	..	1	..	1	3	..	..	..
	Mastoid A.A.		..	..	..	..	..	..	..	..	..	..
	Nephritis B.A.		..	..	..	..	..	..	..	..	..	..
	Nephritis A.A.		..	..	..	..	..	..	..	..	..	..
	Otitis B.A.		1	4	2	4	2	3	16	15	1	6.2
	Otitis A.A.	1	1	2	3	4	1	4	16	15	1	6.2
	Other B.A.	3	15	14	11	13	5	5	66	..	..	..
	Other A.A.		..	..	..	1	..	1	2	..	..	..
No. of Deaths			1	2	..	2	1	4	..	..	10	11.6
Causes of Deaths Contribu.	Prim. Inf. only		..	..	..	..	..	..	..	..	..	..
	Sec. inf.		..	..	..	..	..	..	..	..	..	..
	Bron. pneu.		1	2	..	2	1	4	..	..	10	100.
	Sepsis		..	..	..	..	..	..	..	..	..	..
	Operation		..	..	..	..	..	2	..	..	..	..
	Other		..	..	..	..	..	..	..	..	..	..

Average days' care for patients who recovered—18.4.
No. of patient hours—21,168.
No. of nursing hours—4,730½.

Willard Parker Hospital
MONTHLY SERVICE SURVEY

Primary Disease Observation Service June, 1926

Day of Illness admitted		1st	2nd	3rd	4th	5th	6th	Later	Total	Cured	Died	Autopsy %
No. of Cases		6	4	1	1	..	..	8	20	19	1	5
Antitoxin tr.	1st day	4	..	..	..	..	..	..	4	..	..	..
	2nd day	.	1	..	..	..	..	..	1	..	..	..
	3rd day	.	..	..	..	..	..	..	..	..	..	..
	4th day	.	..	..	1	..	..	..	1	..	..	..
	5th day	.	..	..	..	..	..	..	..	..	..	..
	6th day	.	..	..	..	..	..	..	..	..	..	..
	Later	.	..	..	..	..	..	2	2	..	..	..
Age Group	1st 6 mos.	.	..	..	..	..	..	1	1	..	1	100
	2nd 6 mos.	.	1	..	..	..	..	..	1	1	..	..
	2nd Year	1	..	..	..	..	..	..	1	1	..	..
	3rd Year	1	1	..	..	..	..	2	4	4	..	..
	4th Year	1	..	..	..	..	..	..	1	1	..	..
	5th Year	1	..	..	..	..	..	..	1	1	..	..
	6-10 Year	.	..	1	..	..	..	2	3	3	..	..
	Over 10 Years	2	2	..	1	..	..	3	8	8	..	..
From	Home	3	3	1	1	..	..	6	14	14	..	..
	Hospitals	3	1	..	..	..	..	2	6	5	1	16.6
	Institutions	.	..	..	..	..	..	..	..	..	..	..
Sec. Source inside		.	..	..	..	..	..	..	..	..	..	..
Inf. Source outside		.	..	..	..	..	..	..	..	..	..	..
Operative treatment	Intubations	.	..	..	..	..	..	..	..	..	..	..
	Tracheotomy	.	..	..	..	..	..	..	..	..	..	..
	Mastoidectomy	.	..	..	..	..	..	1	..	1	..	..
	Sinus & tonsil	.	..	..	..	..	..	..	..	..	..	..
	Other	.	..	..	..	..	..	1	..	1	..	..
Complicating Infections	Bron. Pneu. B.A.	.	..	..	..	..	..	1	..	..	1	100
	Bron. Pneu. A.A.	.	..	..	..	..	..	..	..	..	..	..
	Sepsis B.A.	.	..	..	..	..	..	..	..	..	..	..
	Sepsis A.A.	.	..	..	..	..	..	..	..	..	..	..
	Mastoid B.A.	.	..	..	..	..	..	1	..	1	..	..
	Mastoid A.A.	.	..	..	..	..	..	..	..	..	..	..
	Otitis B.A.	.	..	..	..	..	..	2	..	2	..	..
	Otitis A.A.	.	..	..	..	..	..	..	..	..	..	..
	Other B.A.	1	3	..	1	..	..	2	..	7	..	..
	Other A.A.	.	..	..	..	..	..	..	..	..	..	..
No. of Deaths		.	..	..	..	..	..	1	..	..	..	5
Causes of Death	Prim. Inf. only	.	..	..	..	..	..	..	..	..	..	..
	Bron. Pneu.	.	..	..	..	..	..	1	..	..	..	100

No. of patient hours—6,336 No. of nursing hours—2,665

3 German measles
1 Pertussis
1 Polio
1 Otitis media
1 Laryngitis
1 Pharyngitis
1 Strep. sore throat
2 Bron. Pneu.
1 Toxic erythemia
1 Serum rash
3 Contact cases
2 Peritonsillar abscesses
1 Laryngeal Stenosis
1 Concussion of spine

CAUSE OF DEATH

Case No.	Primary	Contributing	Autopsy Number	Anatomical Diagnosis
1929	Diphtheria,	Scarlet fever, Myocarditis	266	Diphtheritic hemorrhages. Hemorrhages in heart, lungs, spleen, Congestion of lungs, liver, kidney. Rt. heart failure. Toxic myocarditis.
1816	Measles,	Bronchopneumonia		
1764	Measles,	Bronchopneumonia		
1708	Measles,	Croup, Bronchopneumonia		
1742	Measles,	Bronchopneumonia	262	Bronchopneumonia.
1756	Measles,	Bronchopneumonia	257	Bronchopneumonia and pulmonary edema.
1566	Measles,	Bronchopneumonia	255	Bronchopneumonia.
1713	Measles,	Bronchopneumonia	253	Bronchopneumonia and pulmonary edema.
1663	Measles,	Bronchopneumonia	261	Bronchopneumonia. Multiple lung abscess. Acute splenic tumor. Pulmonary edema. Purulent bronchitis. Hemoperitoneum. Bilateral otitis Media.
1422	Measles,	Bronchopneumonia, Empyema.	254	Bronchopneumonia. Empyema.
1949	Measles,	Diphtheria, B. P.	267	Morbilliform rash. Diphtheria. Edema of supraglottic portion of larynx. Edema and congestion of lungs. Fatty degeneration of liver. Purulent bronchitis. Cloudy swelling of kidneys.
1688	Scarlet fever,	Bilateral mastoiditis, Sinus thrombosis, Septicemia.		
1595	Bronchitis,	Pericarditis, Bronchopneumonia	248	Bronchopneumonia. Purulent bronchitis. Bronchiolitis. Rt. empyema. Purulent pericarditis. Ricket Malnutrition.

Willard Parker Hospital
MONTHLY SERVICE SURVEY

Primary Disease Diphtheria Service June, 1926

Day of Illness admitted		1st	2nd	3rd	4th	5th	6th	Later	Total	Cured	Died	Autopsy %	Autopsy
No. of Cases		14	21	24	25	15	9	23	131	109	22	16.7	12
Antitoxin tr.	1st day	12	1	2	2	..	..	1	18	16	2	11.1	..
	2nd day	.	20	4	1	..	..	..	25	23	2	8.	..
	3rd day	.	..	18	1	2	..	..	21	18	3	14.2	..
	4th day	.	..	..	20	..	1	..	21	15	6	28.5	..
	5th day	.	..	..	..	13	1	..	14	12	2	14.2	..
	6th day	.	..	..	..	..	7	..	7	5	2	28.5	..
	Later	.	..	..	..	..	..	22	22	17	5	22.7	..
Age Group.	1st 6 mos.	.	..	..	..	1	..	..	1	1	..	..	..
	2nd 6 mos.	1	1	1	3	1	..	2	9	4	5	55.5	..
	2nd Year	4	4	3	4	2	..	3	20	17	3	15.	..
	3rd Year	2	4	1	3	2	2	5	19	16	3	15.7	..
	4th Year	1	4	5	2	..	3	2	17	13	4	23.5	..
	5th Year	.	2	2	4	1	..	1	10	8	2	20.	..
	6-10 Yr.	4	2	7	6	1	3	6	29	25	4	13.7	..
	Over 10 Yrs.	2	4	5	3	7	1	4	26	25	1	3.8	..
From	Home	2	15	16	21	12	9	20	95	76	19	20.	..
	Hospitals	9	1	5	4	1	..	3	23	20	3	13.0	..
	Institutions	3	5	3	..	2	..	..	13	13	..	..	..
Sec. Source inside		2	..	..	..	..	..	..	..	..	..	1.0	..
Inf. Source outside		.	..	..	..	..	..	..	..	..	..	..	..
Operative	Intubations A.A.	.	1	2	3	..	..	4	10	7	3	30.	..
	Tracheotomy	.	..	..	1	..	..	2	3	2	1	33.3	..
	Mastoidectomy	1	..	..	..	..	..	..	..	1	..	..	..
	Sinus & tonsil	1	..	..	..	..	..	1	..	2	..	..	..
	Other	.	..	1	..	..	..	1	..	2	..	..	..
Complicating Infections	Bron. Pneu. B.A.	.	..	..	1	..	..	..	1	..	1	100.	..
	Bron. Pneu. A.A.	.	..	..	2	..	..	1	3	..	3	100.	..
	Sepsis B.A.	.	..	..	..	..	..	..	..	..	..	..	..
	Sepsis A.A.	.	..	..	..	..	..	..	..	..	..	..	..
	Mastoid B.A.	1	..	..	..	..	..	..	..	1	..	..	..
	Mastoid A.A.	.	..	..	..	..	..	..	..	..	..	..	..
	Nephritis B.A.	.	..	..	..	..	..	..	..	..	..	..	..
	Nephritis A.A.	.	..	..	..	..	..	..	..	..	..	..	..
	Otitis B.A.	2	..	..	..	1	..	..	3	3	..	..	..
	Otitis A.A.	1	..	..	3	..	..	1	5	3	2	40.	..
	Other B.A.	12	17	21	19	9	8	18	104	..	..	..	..
	Other A.A.	1	1	..	1	..	1	..	4	..	..	..	..
No. of Deaths		.	1	3	7	2	3	6	..	..	22	16.7	..
Causes of Contribu. deaths	Prim. Inf. only	.	..	1	2	1	1	3	..	..	8	36.3	..
	Sec. Inf.	.	..	..	..	..	..	..	..	..	..	..	..
	Bron. Pneu.	..	..	..	3	..	..	1	..	..	4	18.1	..
	Sepsis	.	..	..	..	..	..	..	..	..	..	..	..
	Operation	.	..	1	3	..	..	..	4	..	..	..	..
	Other	.	1	2	2	1	2	2	..	..	10	45.4	..

Average days' care for patients who recovered—15.5.
No. of patient hours—45,432 No. of nursing hours—3,780

ice is given for the purpose of study and research.

The benefit to the patients from these conferences is first, that the responsibility for the medical, surgical and nursing care is definitely fixed; second, that the attending, resident and nursing staffs are stimulated to render the best possible service.

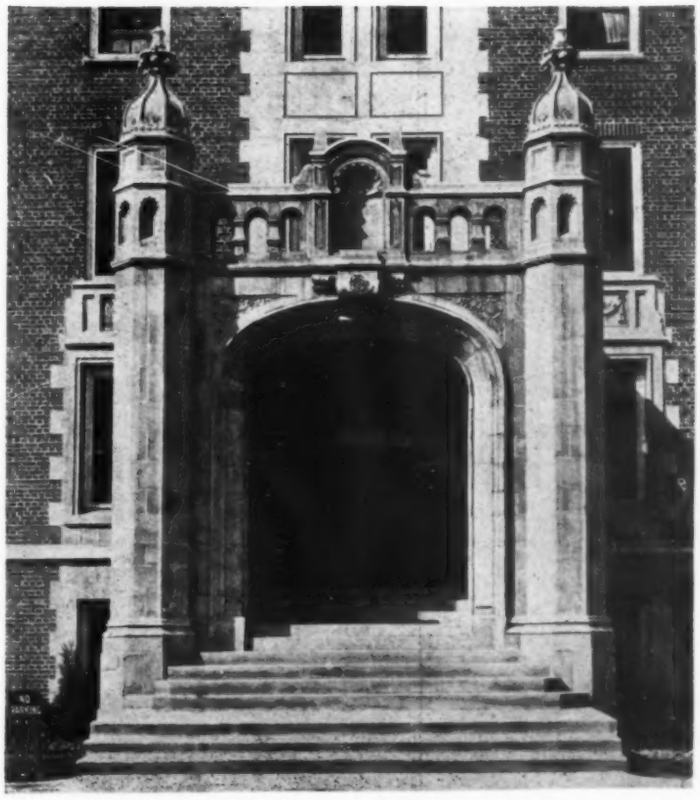
The value of these conferences to the medical staffs is the information on differential points of diagnosis, comparative results of treatment and frequency of rare and common complications. This is of especial value to those members of the staffs who teach for the medical colleges.

The value of these conferences to the administrative staff is the knowledge of what special supplies and equipment they will be called on to furnish, the number and kind of services to be maintained, the approximate number of patients to be cared for, and the personal service necessary to meet the requirements of the standard of service set.

In conclusion, it can be stated that our experience has proved that the variations in virulence and prevalence of communicable diseases are so wide, from season to season, that only by continuing the study of records over a considerable period of years can valid conclusions be drawn.

The Hospital's Front Door

Above are two contrasting types of front entrances. The entrance to the Muhlenberg Hospital, Plainfield, N. J. (left) is typical of the elevated approach. The entrance to the Hermann Hospital, Houston, Texas (right) is the ground level type of entrance with outer gate.



At the left is the main entrance to the Saginaw General Hospital, Saginaw, Mich., representing the modern trend of combination of styles not adapted from any particular period of architecture. The motives of the main entrance are repeated in various units throughout the building.

STUDIES ON HOSPITAL PROCEDURES

THE DIETARY DEPARTMENT

IT MAY be well to recall to the mind of the reader that in the last issue of this magazine, in discussing the dietary department, it was stated that there were eight important steps concerned in providing a suitable dietary for the hospital patient. The first group of these requirements was discussed in more or less detail in the article to which reference has been made. It will be the purpose of the present article to discuss in some detail the remaining steps in the building of this hospital diet, namely, the purchase of supplies, their delivery and inspection by the dietitian or storekeeper, and the removal of waste, as well as its inspection by the dietitian for evidences of faulty ordering, purchase, preparation or transportation.

It does not seem to come within the purview of this discussion to endeavor to describe the proper preparation of foods, from the standpoint of actual cooking; nor to consume any considerable space in setting down a comprehensive description of the various methods of transporting diets from the diet kitchen to the hospital ward or room. It appears sufficient to refer below to the literature on this, as well as on other related matters discussed in this article, so that the reader if he so desires may amplify this subject matter by reference to the articles that have been published from time to time.

The Dietitian's Budget

It is a businesslike procedure for the superintendent of the hospital to inform the dietitian relative to the amount of money which she is allowed for the purchase of foods. This appears wise for the following reasons:

1. It gives the dietitian a definite basis upon which to work in filling her dietary prescriptions.
2. It is the only efficient and practical method with which to combat either inordinate demands on the hospital's purse, or an improper and unnecessary economy.
3. It spares the superintendent or the purchasing agent the time-consuming task of routinely passing on items of expenditure for food materials, and makes necessary a survey of the dietary department, from the standpoint of outlay, at less frequent intervals.

If complaints as to the paucity or the unusual expense of the diet are made, this allotment can be revised upward or downward.

The dietitian's budget can be set forth either in an allowance per meal or per day, for raw food, for each patient. Once the dietitian has, after consultation with the superintendent, been officially informed that she will be allotted, for example, thirty cents per meal per patient, she is able to proceed along practical lines in filling the requests that have come to her from the ward physician. For example, if the dietitian, having received her dietary prescriptions from the hospital wards and rooms, is expected to feed 100 patients a day at thirty cents a meal, she is at once in possession of the important facts bearing on the solution of her problem—the variety and the amount of food requested; the unit price of raw food (which she has secured from market reports and elsewhere), and, of greatest importance, the size of her purse, with which to make these purchases. To provide 300 meals for a total of ninety dollars, then, becomes a matter of the purchase of raw materials for this sum of money sufficient to satisfy the prescriptions of the visiting physician.

The Budget as a Guide

In the same manner, the budgeting of the dietitian makes it possible for this officer to decide whether she will be able to buy, for example, loins of beef at thirty-seven cents a pound; or whether it will be necessary for her to use a cheaper grade of meat. If, on the other hand, she finds that by purchasing ribs of beef, for example, at twenty-seven cents a pound, she will be able, two days a week, to serve loins of beef and chicken, a rather healthy spirit of economy and thrift is thus encouraged, and the dietitian's doubts as to the justification of the purchase of expensive foods are more or less relieved.

It also places the dietitian in the position of explaining, if not justifying, her inability to supply all the items in the requisitions from the wards for any day, by stating that substitutions were necessary because her budget had not permitted the purchase of such expensive articles of food.

The solution of the problem of successfully adapting the work of the dietary department to a definite budget allowance, then, depends on these main facts:

There must have been adopted by the board of trustees or superintendent of the hospital, on recommendation of the dietitian, basic raw food allowance standards, covering the main staples.

There must have been worked out and adopted a hospital dietary, in which is set forth the articles covered by each standard diet and the approximate caloric value of each.

The census reports, compiled by the ward or floor nurse, must not be "padded," or inaccurate, since the success of the system is based on the number of individuals to be fed and not on gross amounts of either money or food.

Given these facts, the budget system can be practically and successfully worked out. If the nurse, to be certain that there is no shortage of food on her floor, is permitted to make a report in excess of her census, no economy can result from this scheme.

However, it must be granted that the conduct of a dietary department on a definite budget is not usually as simple as the problem narrated above might indicate, yet the principle is sound, and can be adapted to almost any hospital. But to do so, the dietitian, storekeeper, superintendent and visiting physician must all cooperate in an effort to bring about an economical and efficient use of the hospital's funds for the purchase of food.

Methods of Purchase

Three main considerations present themselves in discussing this subject:

. When to buy? Who shall do the buying? How shall the buying be done?

There has been much said concerning the purchase of futures by the hospital. (Ref. 8-9.) It seems to be the consensus of opinion that this method of buying is not justified. A number of references to some excellent articles, covering this matter, will be found at the conclusion of this article, the perusal of which will make possible greater amplification of the details of this subject than can be set down here.

The storage facilities, the size and type of the hospital, as well as the location of the institution, as to whether it is in a farming or an urban district, all have a bearing on the purchase of goods. For example, a small hospital, located in a rural or suburban district, may be able to purchase eggs and butter from nearby farmers, and to store these commodities for use later in the year when the price is high. This same type of institution may also be able to purchase potatoes, turnips, carrots, and other tuberous vegetables in late fall, and preserve them in vegetable cellars or some other suitable place for use during the winter. The city hospital, however, usually has no storage facilities for carrying out this method of buying, and frequently even if such space is available, this scheme is not as advantageous to the urban hospital as it is to institutions in the country.

The location of the hospital may further influence its buying, for an institution located near a large flour mill, for example, may be able to purchase this staple much more cheaply from this local concern than from other wholesalers. Frequently, milk may be bought from the producer—the farmer—more cheaply by the country hospital than its urban sister can buy it from wholesalers, after each quart has paid a profit to two or more persons.

It may be stated that it usually is not wise for hospitals to purchase in quantity from local concerns at retail prices, or even slightly below these figures.

At a recent meeting of the American Hospital Association (Ref. 7), during the discussion of the question of cooperative buying, it was stated that the hospital had no obligation to buy from local concerns unless the prices of these concerns were as low as those of others from whom supplies of equal grade could be procured.

Other considerations, which must be borne in mind as affecting the quantities of supplies to be purchased, are: The methods of financing the hospital; current market prices; the amount of refrigeration space available, and the type of the hospital in question (the tuberculosis institution requiring an excess of milk, eggs, etc.).

As to the second question under this heading: In hospitals of size there usually is to be found a purchasing agent, whose skill and experience fit him efficiently to buy all of the commodities needed by the hospital.

To this officer is assigned the purchase of all raw food materials, except, perhaps, green goods, which the dietitian often buys, in order to satisfy, from day to day, the current needs of her dietary. It does not seem fair to the dietitian to require her in the larger hospitals to be responsible for the actual purchase of goods. Nor does the superintendent usually find time to assume charge of this work. Much experience, a natural aptitude and much time and patience are required to do intelligent and economical buying.

Specifications for Food

In regard to the question of how to buy, the literature on this subject is voluminous. Two basic principles may be here stated: First, that competition in the purchase of food will save the hospital much money; second, that it is a wise institution that buys food on quality, and not altogether on price.

In order to take advantage of the principle of competition in buying, the hospital must needs have a well worked out, carefully worded set of specifications for each of its major food articles.

Particularly should this be done in the purchase of meats, canned goods, butter, milk, eggs, and cheese.

For the smaller hospital, in a community where the superintendent is personally acquainted with dealers in many commodities purchased, a set of specifications immediately removes the possibility of personalities and argument entering into the question and places these transactions on a purely business basis. Nor does it seem impracticable for the purchase of goods from specification, in the manner suggested below, to apply to institutions of all sizes, many types and most locations. It is granted at once that for certain commodities, which are purchased in small quantities, the preparation of detailed specifications would not be justified, but by and large the principle is a good one.

There will be set forth below a number of the type specifications that are in use in one large urban hospital in the East, and which have been found practicable there. Before specifications are drawn up, it is wise to set forth the conditions under which these specifications are operative. In the institution to which reference has been made, duplicate specification blanks are supplied to each prospective bidder. A small certified check is required (in this instance, 5 per cent of the sum of the bid), which is intended to be a guarantee of good faith on the part of the bidder, and removes from the field triflers who are not deserving of serious consideration by the institution. In large purchases, involving a considerable sum of money, the successful bidder is required to file a bond, guaranteeing the delivery of the proper goods within the specified time.

Provisions of Contract

In the contract, which is drawn up between the successful bidder and the hospital, is inserted an agreement by the former promptly to remove all goods that are rejected for quality and to replace them with approved articles. Such statements as, that full tare must be allowed and no charge made for packages; that the weighers' and gagers' certificates must accompany the bills, etc., are inserted in this contract. "Equal-to" articles or materials must be described fully, giving the catalogue numbers, and other descriptive material, to make possible their identification.

Meats.—Much has been written on this subject. The readers of this article are referred to the references at its conclusion, which are presented to amplify the subject matter herein set down. (Ref. 1, 4, 5, 6.)

It has been stated that almost one-sixth of the total outlay of the American family for food is spent for meat. Certainly meat is one of the main articles of expense in the hospital dietary. There is much practical information available on the question of the inspection of meats. Most large hospitals rely largely on the stamp of the Federal or State inspector, which should be found on each article delivered. Collins (Ref. 3) has contributed a lucid and comprehensive description of the practical points to be observed in the inspection of meat on its delivery to the hospital.

It may be stated here that there is often but little evidence of the presence of those toxins that produce serious meat poisoining, and that the purchasing agent or the dietitian must rely largely upon the reputation of the contractor or dealer who furnishes the article, and upon the Federal or State stamp of approval.

Work List of Specifications

As has been intimated above, no attempt will be made to set down in this article complete specifications for any type of food, the reader being referred to the literature on this subject.

Beef.—"All meats are to be city or United States inspected, passed and so marked, and are to be of fresh and good quality, free from bruises, well fatted and well meated.

"No bulls, stags, ox, imported carcasses, cold storage or meats in a frozen condition will be accepted, final judgment of quality and condition of meats to be made by the inspector in charge of station delivery.

"Steers, weighing not less than 500, or more than 700 pounds per carcass. Whole carcasses are required, consisting of two forequarters and two hindquarters from the same steer, or of the same grade and weight.

"Cows, weighing not less than 500, or more than 650 pounds per carcass. Whole carcasses are required, consisting of two forequarters and two hindquarters from the same cow, or of the same grade and weight. Udders to be excluded from deliveries.

"The delivery of rattlers from cows shall consist of five-rib chuck, plate and brisket. Rattlers from stags, oxen or bulls will not be accepted. Rattlers shall weigh from 100 to 130 pounds each."

Specifications for special cuts, such as "crosscuts from cows, 85 to 100 pounds each; chucks, 75 to 90 pounds each; ribs, 25 to 38 pounds each; loins, 25 to 40 pounds each—all are covered by adequate specifications.

Mutton.—In the institution to which reference has been made, the specifications for mutton are as follows:

"Mutton, in carcass. Deliveries shall be of good

quality, well fatted and well meated sheep, over one and under three years old, and to weigh, excluding pluck and cauls, not less than 45 or more than 65 pounds, dressed, per carcass. The head must be cut off at the first vertebral joint No bucks or wet ewes will be accepted.

"Wings, to consist of one neck, two breasts and two shoulders to each set, and which must not weigh less than 12 or more than 20 pounds per set. Deliveries shall be of good quality, well fatted and well meated sheep. No wings from bucks or wet ewes will be accepted."

Poultry. In regard to the purchase of poultry, the specifications need be somewhat less lengthy. Roasting chickens are described as being of prime quality; of from six months to one year old, dry picked, three to four pounds each; and stewing chickens to be of prime quality, dry picked, three to five pounds each.

Specifications usually require that poultry must be fresh, in good state of nutrition, and ice packed during summer months. No cold storage, old fowls, or poultry in a frozen condition are acceptable.

Hospitals in country districts are more fortunate in being able to purchase poultry direct from the producer, and therefore do not run the risk of having to use fowls that have been frozen or that have been transported long distances.

Milk. (Ref. 10) When it comes to the purchase of milk ofttimes the institution displays less caution than it should. Milk, holding as it does such an important place in the hospital dietary, should be of the best, and the superintendent must be on the alert to detect any departure from this high standard. The hospital should not purchase merely a quart of milk, but should see that this milk has been produced under hygienic and cleanly conditions, and that it is bacteriologically safe for the use of sick people.

Milk Specifications

In most institutions pasteurized milk is used, certified milk, perhaps, being purchased for use in the children's ward for feeding cases. The following specifications are useful in safeguarding the hospital against contamination or adulteration in its milk and cream supply:

a. Milk and cream shall be pasteurized and shall be not more than thirty-six hours old when delivered at the hospital.

b. Milk and cream shall be reduced to 60° F., or less, before it is shipped, and must not again be above that temperature except during the pasteurization.

c. Milk and cream shall be free from preservatives and adulteration, and the bacteria count ought to be below 50,000 per cubic centimeter.

d. Milk shall contain a minimum of 3.50 per cent butter fat, and not less than 12 per cent of milk solids.

e. Cream must be separated; must not be over forty-eight hours old when received in the hospital; must contain at least 25 per cent fat; must be free from streptococci, or other pus-producing microörganisms, and must not contain any preservatives. The bacteria count must be below 50,000 per cubic centimeter. Deliveries to be made in one quart, capped bottles.

f. The contractor shall furnish the superintendent of the hospital with a complete list of the names and addresses of the producers from whom he obtains milk, and cream, for delivery to the institution and no milk or cream shall be supplied except from these producers.

Sanitary Conditions of Sources

g. The contractor shall agree to furnish to the hospital milk and cream from farms where the following conditions obtain:

1. The cows shall be in a condition of health. Sick cows, and cows with diseased udders shall not be used for the production of market milk.

2. The stables and yards in which the cows are kept shall be maintained in a cleanly condition.

3. Milking shall be done in a cleanly way by cleanly milkers, who are free from infectious diseases.

4. The supply of water on the farms shall be pure, and of such a source that it may not become contaminated by the germs of typhoid fever or other diseases.

5. The cans or other containers in which milk is shipped shall be thoroughly washed and scalded with boiling water or with steam, each time before they are used.

Specifications for Certified Milk and Cream.—This milk and cream shall be certified by the local milk commission, or other similar body. (Sometimes the local pediatric society assumes this function.) The bacteria count per cubic centimeter shall not exceed 10,000. The butter fat of the milk shall not be less than 4 per cent.

Certified milk is usually twice or thrice the cost of ordinary pasteurized milk, but most institutions feel that this additional expense is justified for the purchase of milk for use in the children's ward.

No less attention should be given to the preparation of strict specifications covering the purchase of eggs and butter.

Eggs. Eggs may be specified as follows:

Strictly fresh; not more than ninety-six hours old. When these can be procured, and when the

hospital can afford the added expense required therefor, such eggs are greatly enjoyed by the patients, especially those on liquid diets.

Where storage eggs are purchased, these may be described as follows:

Eggs to be reasonably uniform; each case to contain a minimum of 70 per cent of U. S. Extras, or better. The balance of 30 per cent to be U. S. Standards, or better. A maximum of ten checks or cracks, and eight stained or slightly dirty eggs allowed to each case of thirty dozen, as graded by U. S. Standards.

Shell—To be clean and sound.
Air cell—One-quarter inch or less, localized; regular.
Yolk—May be visible.
White—To be firm and clear.
Germ—No visible development.
Weight—To weigh not less than 44 pounds net, to a thirty-dozen case.

The contractor is usually required to recandle and recrate eggs before delivery to the hospital. High grade storage eggs, while not equal in any way to strictly fresh eggs, are ofttimes very satisfactory, and from 30 to 50 per cent cheaper.

Butter. Many hospitals feel that print butter is as economical as tub butter, because of less waste in dispensing it. The grading of butter is usually done in accordance with the standard set up by the U. S. Department of Agriculture, which is as follows:

Flavor	45 counts
Body	25 counts
Color	15 counts
Salt	10 counts
Package	5 counts

The specifications for butter usually set forth the fact that it must scale not less than ninety points, according to the above standard.

Direct Purchase by Small Hospitals

Smaller hospitals sometimes may be able to purchase their butter direct from the creamery, but even then a knowledge of the U. S. Department of Agriculture's system of scaling is useful.

Fish and Oysters. In preparing specifications for fish and oysters, the main facts to be insisted upon are the weight and freshness of the former, and the size of the latter.

Oysters are usually specified as from six to eight hundred to the sack, or not more than from 250 to 275 to the gallon. It is usually stated that no floaters, mixed shipments or culls will be accepted.

Canned Goods. Much has been written from a practical standpoint relative to the purchase of canned goods. This term usually refers to canned vegetables and fruits.

Canned meat, such as corned beef and other beef products, may be used where fresh meats cannot be procured, but from the standpoint of safety to the patient, this type of food, preserved by canning, is more likely to be unwholesome, perhaps, than are fruits or vegetables. The nature of this product obviously prevents careful inspection of more than a unit here and there of the whole lot. The hospital buyer must depend in considerable measure on the reputation of the canner and a knowledge of the particular brand purchased.

The number of pieces of fruit in each can, the amount of sugar and of liquor which each can contains, are items that should receive the buyer's attention. The purchase of canned fruit and vegetables in gallon containers is usually economical, but the use of quart, and even pint cans of some commodities, where individual servings are to be prepared, is also wise.

The reader is directed to the references cited below for amplification of the subject of the purchase of canned goods. (Ref. 11, 12, 13, 14.)

Practical Suggestions on Economy

THE MODERN HOSPITAL of August, 1921, contained an excellent article by H. O. Collins (Ref. 3), relative to economy in the selection and preparation of meat for use in building the hospital dietary.

The purchase of the whole carcass and the cutting up of this meat by the hospital is usually money saving. Dietitians sometimes use costly cuts of beef for hamburger steak and for other meat preparations, where less expensive portions might be employed (chuck beef being just as good for this purpose). The soup pot is an economical "catch-all" for tough meat or other portions that are difficult to use in any other way. The utilization of fats and grease in making soap is another useful expedient in bringing about economy.

The reader is referred to THE MODERN HOSPITAL of October, 1926, p. 113, for a discussion of garbage inspection and weighing in promoting economy.

The whole question of saving the hospital's money centers about the development of thrift in the conduct of the kitchen, which begins with the dietitian and extends to every person in her department. It has been stated that a careless housewife can waste more money by throwing food out of the kitchen window than her industrious husband can bring in at the front door. This statement, with some slight alteration and modernization, might be applied with no less force to the dietary personnel and the superintendent.

When putrefying organisms gain entrance to

food, as a result of their growth and reproduction there, toxins or ptomains are formed, which may do the consumer much harm. Particularly is this true in regard to meats, and specifically in respect to sausages and other pork products. When food containing these toxins is consumed by a number of persons, usually all those who partook of the particular food are affected in some degree. When this occurs, it is a sign that the difficulty is due to food, and not to some other condition.

The symptoms usually present are those of inflammation of the stomach and intestinal tract (gastro-enteritis), a condition which is manifested by vomiting, purging, fainting and general bodily depression.

Ptomain poisoning is much more likely to occur in hot weather than in cold, or at any time when the refrigeration system of the hospital may be disabled for a short period of time. Poisoning may also result when food is cooked in metal pots, from which poisonous substances may be separated. Copper pots are particularly dangerous or pots with composition linings containing lead.

Infection of Food Products

A deadly food poisoning is known as botulism. This is caused by infection of food products with an organism known as the Bacillus botulinus. This organism, and the poisons that it produces, are destroyed by thorough cooking, so that it is only from uncooked meats—usually pork, or less frequently cheese or vegetables—that this poisoning may arise. So violent, however, is this type of poisoning that when several persons are affected there is usually loss of life. Thorough cooking safeguards against this deadly type of food poisoning. The best precautionary measures consist in the purchase of high grade food from reliable dealers, and the storage of all perishable food articles in efficient refrigerators until needed for consumption, and then thorough sterilization by heat.

In addition to the danger of poisoning by food that contains toxins, generated in it by the growth of contaminating germs, food is sometimes infected with animal parasites, which may do the patient harm.

The Trichina is a parasite, microscopic in size in some of its stages of development, which infects pork. If nobody ate pork there would be no infection with this parasite. If hogs were properly fed this animal would not become infected. In some slaughter houses, particularly in rural communities, pigs are sometimes allowed to eat offal, and are thus infected. Rats are often infected with this parasite, and pigs have been known to have become infected from eating the bodies of these rodents. Microscopic examination of pork for the presence of this parasite, by the government of this and other countries, has proved not only too expensive but also not trustworthy. Thus other methods have to be employed and it rests with the consumer, for the most part, to exercise precaution in cooking meat.

The secret of protecting the patient against this infection lies in thorough cooking of pork—a temperature of 131° F. killing Trichinae that are free in meat, while 200° F. is required to destroy them in encapsulated form. Poorly roasted pork, improperly boiled ham, and homemade sausages are often the source of Trichina infection. Raw vegetables may also be a danger to the patient's health. Typhoid fever, echinococcus-disease, and even tuberculosis may be transmitted by eating infected, uncooked vegetables. Milk may be the source of the transmission of tuberculosis. It would behoove the hospital, buying from the small dealer or farmer, to make certain that the milk which it uses is produced in a sanitary and cleanly fashion. Uncovered fruit and vegetables, in market stalls, may be a source of harm to the patient, by transmitting disease-producing germs. These may include the organisms of tuberculosis, pneumonia and typhoid fever.

1. Bul. No. 36, Amer. Hosp. Assoc., p. 1-4 Chicago, 1921.
2. Bul. No. 35, Amer. Hosp. Assoc., p. 1-8, Chicago, 1921.
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WHERE COURTESY IS LACKING

"If hospitals only realized the effect that brusqueness in answering telephone calls is likely to produce," comments a writer in the *Hospital Gazette*, "I think that they should exercise considerable care in delegating this exceedingly important duty."

"My experience this morning was as follows:

"'Hullo!'

"'Is that —— Hospital?'

"'Yes.'

"'Is Mr. —— in? If so, I would like to talk to him.'

"'Hold on.'"

"I then got the soft, soothing voice of the gentleman in authority.

"To my mind the telephone and the front door are two important media for making a good impression on possible supporters and if this good impression be lacking so may contributions be also."

Editorials

SHALL THE DOCTOR CHARGE THE WARD PATIENT FOR SERVICES?

THE practical application to hospital practice of the workmen's compensation law has again brought to a focus the question of whether the physician should be allowed to charge a fee for his service to the ward patient. The practice throughout the country in regard to this matter is not at all uniform.

In many cities to charge a ward patient a fee would mean certain and sudden removal of the visiting physician or surgeon from the hospital's staff. In others, this is not only permitted but generally accepted as fair to all parties concerned —the hospital, the physician, and the patient.

A somewhat similar variance of practice is noted in regard to the feeing of the physician by the insurance carrier for the professional care of compensation cases in the hospital. The difference in the status, however, of these two types of patients evolves from the source of the fee—whether from individual or corporate resources.

There are those who question the consistency of allowing the surgeon to receive payment for performing a herniotomy to cure a defect caused by lifting a barrel of sugar on the wharf, when a like operation on a rupture produced by strain or injury without industry, must be performed gratis, even though the patient is able and willing to pay a moderate charge. And yet the expense of the care of those injured by industry is without doubt an item that must be included in the total outlay required to manufacture any product.

But here the problem becomes one that involves the ideals and the practical accomplishments of the hospital's work. Would permission for the surgeon to exact a fee from the ward patient, who has paid the institution's full cost for his maintenance, mar the fine traditions of the hospital of always being willing to furnish medical service to the needy public, at a rate that ranges from nothing up to the cost price per day? Why should not the hospital more generally exert its undoubted authority to fix certain rates, particularly in wards or rooms devoted to the care of those of moderate means, beyond which neither doctors nor nurses dare go? Of course, if such were deemed practicable no patient who was not able to meet the hospital's cost price for service, wherever performed, would, by the same token, be able to pay the physician's fee.

From the beginnings of hospital practice the free care of the ward patient has been the return expected of the physician for the privilege of treating his more opulent patients in the institution's private rooms. Nor does it seem unfair to state that in the existing arrangement between doctors and hospitals, the former are receiving a very generous recompense for their participation in the cooperative effort. And yet, after the hospital has been paid its regular charge for services and supplies incident to caring for a patient, whether he be in a twenty-five-, ten-, four-, or one-bed ward, is the basic principle, stripped of tradition or sentiment, relative to the right of the physician to exact a fee, different in any case?

Perhaps the solution lies in setting aside a ward for those who cannot pay the full cost price of the hospital, and another for those who can fully satisfy the expense incurred by the institution for their care.

One cannot but note the development of a new policy in the hospital field which finds expression in the more frequent use of small wards for the treatment of those who cannot afford single rooms, and the placing of a maximum fee for the doctor and the nurse who treat patients there. Would it not be of greater practical fairness to all to fix, as the criterion of the patient's obligation to pay his doctor, not his place in the hospital, but his ability to pay both his hospital bills and those for professional service?

PROTECTIVE LEGISLATION

AT A recent state meeting it was urged that the legislative committee take steps toward the introduction of favorable laws for hospitals. At this time it was also pointed out that the hospitals and the hospital associations usually participated only in "defensive legislation," whereas it might be better if these organizations inaugurated some sane system of protective legislation.

There is much to be commended in this suggestion. When the legislative committee comes to the attention of the public only in times of trouble, the public is apt to believe that there are dark and mysterious reasons why the committee has not been heard of before and that its only function is to obstruct the legislators in the august duty of framing statutes that are for the benefit of all.

A program of constructive legislation, of active participation in the introduction and adoption of favorable health and hospital laws, as well as the defensive attitude, would have the double result of directly furthering the interests of the hos-

pitals and of indirectly promoting their welfare.

Eternal vigilance is not only the price of peace but of sane legislation and it is by constantly reviewing bills about to be introduced and diligently searching for the "jokers," and by daily contact with the legislators that the best interests of the hospitals and the communities may be protected. Had such work been done when the compensation bills were being introduced there would not be such an enormous amount of undoing to be accomplished at this time. Instead of acting as a guide for the law makers the hospitals stood idly by, and now double effort must be exerted if the teeth are to be drawn from some of these vicious laws.

The matter of taxation looms big upon the horizon and it may be safely predicted that if the hospitals persist in their passive attitude the result will be huge expenditures and years of bitter wrangling, whereby the good will of the community will be alienated and hospitals will once more be open to the charge of unbusinesslike methods.

"Lobby" has become a disagreeable word and lobbying a discredited art, but something of this nature is going to be necessary and the ways and means be discussed before it is too late.

THE NURSE WITH A BAD COLD

ONE of the functions of the good nurse is to preach health to all patients who come under her care. She warns them not to do this, always to do that; she impresses upon those who are ill that health is priceless and that, broadly speaking, it can be possessed by those who will be careful to observe a few simple rules. In spreading this gospel she is performing a worthy work, and if she is an earnest apostle her words are repeated when the patients go home and the effect of her mission multipled many times.

There is another phase of this work, however, that the hospital is interested in and that is the observation of the rules of health by the nurses themselves. It is safe to say that if the nurses followed their own admonitions as diligently as they insist that the patients should follow them, less sick leave would be necessary and the general efficiency of the nursing body would be considerably elevated. There is something incongruous in a nurse with a cold telling her patients always to wear rubbers in rainy weather, or a half sick nurse preaching the tenets of always keeping well. The nurse must live and act the part or her words are lost. She must practice what she preaches; this is her duty toward her patient, her institution and herself.

TALKING IT OVER

A PATIENT was being discharged from the hospital. Her clinical record was complete, and her diagnosis and result of treatment had both been set down on the card to be filed in the institutional record room. "Goodbyes" were said, and many jocular and some more serious final admonitions to those remaining were given by the happy patient who was soon to be with her loved ones again. As she passed the desk of the admission clerk, she was heard to say: "I love every brick in this building. It has been so kind to me." But it wasn't the building toward which this grateful patient wished to express affection, but rather all the hospital workers of high or low degree, who had speeded in any way her return to health. Is there any finer recompense than a really sincere thankfulness from the heart of one who may perhaps have naught else with which to pay?

* * *

THE Medical Society of the County of Kings in Brooklyn has recently admitted laymen to associate membership. It appears that medical men have at last realized that a body of influential citizens can do much to aid the public to choose wisely between the untrained quack and nostrum vender and the scientifically equipped physician. One wonders why the hospital should not profit by possessing not only a woman's visiting committee but also a like body composed of men of vision and understanding.

* * *

THE superintendent must often stand in *loco parentis* in safeguarding the personal health of members of his hospital personnel, or even at times the patients. Winter's chilly breath ofttimes brings discomfort to patients who are placed near windows. The simple window ventilator, which deflects cold air upward and away from the patient's bed, is a practical and inexpensive safeguard to his health. The student nurse who goes without her cape and rubbers over wet pavements and through draughty passageways, is not being fair to herself or her hospital. Cold elevator shafts endanger the life of the postoperative patient from pneumonia. Storm doors protect the office staff from frequent colds. Sometimes even the executive needs to be reminded that going out of doors in January without hat and overcoat is likely to deprive the hospital of his useful services for a time, and may needlessly bring upon himself not a little discomfort.

* * *

THE routine duties of the superintendent decrease as the number of beds in his institution increases. Direct functioning changes to supervision of department heads and the executive of a 300-bed hospital delegates many duties that were formerly performed by him when the institution had only a hundred beds. The superintendent of a twenty-five-bed hospital often acts as head nurse, anesthetist, sometimes dietitian and often storekeeper. The prize, however, goes to the head of a fifteen-bed hospital in a little town in Michigan who was found weeding the garden and collecting the vegetables that she, herself, was going to cook for her twelve patients and five assistants.

* * *

STANDARDIZATION has become such a mania in this country that it is taking on serious proportions. It was recently pointed out by one hospital executive that standardization was an excellent thing only so long as it was kept along reasonable lines and confirmed by com-

mon sense. The discouragement of too many types and styles of equipment is commendable, but occasions arise when a variation from the standard is preferable and indeed more economical, when the space requirements almost demand the odd size or the unusual design. If these are wholly eliminated hardships sometimes ensue.

* * *

THERE is one person in the hospital whose days are often over-full of responsibility and worry. No repose is granted her after the sun has made his bow to the new day. Her arising is like that of the Scotchman's wife, who was never awakened by him but was allowed to sleep as late as she chose, as long as breakfast was ready at 6 A. M.! The transformation of great quantities of raw material into tasty articles of diet; the tranquilizing of temperamental chefs; the instruction of aspiring nurses; the unending battle with rising costs, are but a few of her daily tasks. It is the dietitian to whom we owe thanks for her faithfulness, her skill, and her untiring devotion to the interests of the patient.

* * *

HARKING back to the old saw, "A little knowledge is a dangerous thing," let us consider the hospital superintendent in the light of this saying. Of necessity he must be well versed on many subjects and he must have a nodding acquaintance with as many more. Into the first classification come all of his routine duties and into the second those things that directly affect his institution but of which he is not the originator. One of these things is fire insurance, and even the best of hospital executives admits that he has much to learn on the subject. We have discussed it this month on page 86 and believe there are many thoughts expressed that will enlighten, and will perhaps dispel misunderstandings on this vital topic.

* * *

ALL men who have achieved eminence in any field have attached to their lives many anecdotes which often shed new light on their characters. It is related that Sir William Osler was once demonstrating a patient with a skin rash to his class. Points of differential diagnosis were stressed, and particularly were the reasons set forth why the disease could not be small-pox. Upon asking a student what he deemed the correct diagnosis, the teacher was startled to receive the reply, "small-pox." Doctor Osler was greatly angered to have it suggested that he would expose his class so carelessly to this dread malady. The diagnosis of the medical infant was correct, and no one enjoyed the teacher's discomfiture more thoroughly than Osler himself.

* * *

WHAT do you do with the many boxes that come to the hospital filled with flowers for the patients? The answer to this question would probably be, in most cases, "Why, put them in the refuse can, of course, of what use are they?" Has it ever occurred to you that nearly everything might have some further use, or even an exchange or purchasing value, if thoughtfully considered? Well, so it is with flower boxes. In one hospital an arrangement was made with a local florist's shop whereby empty boxes are picked up on call. Not only boxes from the florist's own shop are saved, but all good boxes, an address sticker being placed over the name of the former box owner. In exchange vases of good type and in a sufficient number are received, so that none have been purchased in the past four years. Thus an entirely useless article becomes converted into a really necessary one with no financial outlay or labor involved.

* * *

AN OHIO hospital recently gave a dinner to the press men of the community to express good will and appreciation of the local newspapers' cooperation with the hospital during the past year. This is of interest as an indication of this hospital's appreciation of the value of promoting community relationships and the right kind of publicity through the medium of the press. Of course such a custom may not be practical for every hospital but there are other ways of making friends of the local newspapers through fair and courteous treatment of reporters and editors, a sympathetic interest and willingness to give out news that will be beneficial to the hospital.

* * *

A SHORT time ago the people of a fair-sized southwestern town defeated two to one a $125,000 bond issue to erect a city hospital. Among the reasons given by the opponents of the project was expressed the conviction that the physicians of the town should build their own hospital. Evidently a few people still feel that hospitals are instruments for the convenience of practitioners and as such their responsibility should rest with the physicians and surgeons of the community. At least the attitude expressed would indicate that hospitals need to do more educational work so that people of certain localities may begin to realize that hospitals are community projects and should be supported by the people just as are schools and other social institutions that exist for the common good.

* * *

IT WAS Oscar Wilde who said that there are only two great tragedies in life—not getting what you want, and getting it.

To have attained any desired object, from the acquisition of new equipment to the construction of an entirely new institutional plant, is most gratifying. To the soul of the administrator comes great satisfaction when dreams become brick and mortar and marble, but it is, indeed, a tragedy when such material success produces any cessation of effort toward either physical or scientific perfection.

To those to whom new and modern buildings are an impossibility, it must be gratifying to remember that patients can be just as certainly well served in relatively inconvenient surroundings as with more elaborate equipment, provided those to whom their care is entrusted are zealous and resourceful.

Upon those hospital workers in more fortunate circumstances rests the added responsibility of rendering a degree of service commensurate with the modern facilities at hand.

* * *

THERE are some people in whose brains an idea would die of lonesomeness. These people are as superficial as the dogs that ran as they drank from the Nile for fear that the crocodiles would catch them. Such people do not last long in the hospital field. This field requires of those who enter it brains, industry, initiative and fortitude. It is no place for the half-hearted, the squealer, the poor finisher, the never-was-er, the slacker or the sluggard, but its rewards come in the satisfaction of work well done, a life well lived, the easement of suffering and the restoration of health.

Why BANANAS Have a Place in Every Diet

"We are taking too little of the protective foods, milk, the leafy vegetables and fresh fruits, and a movement toward stimulating the consumption of these classes of foods would go far toward effecting that improvement in our national health standards for which the many agencies concerned with public health are seeking." . . . McCOLLUM AND SIMMONDS, "The Newer Knowledge of Nutrition," Third Edition, P. 539.

Bananas Meet these Requirements

AS a PROTECTIVE FOOD the banana has been found an excellent source of Vitamins A and C and a good source of Vitamin B as well as of the essential mineral salts.

When used WITH MILK, the banana, owing to its high carbohydrate content, makes an ideally balanced ration—four to five parts of carbohydrate to one of protein. This is readily seen in the following analyses from Locke's "Food Values":

	Calorie Values			
	Carbohydrate	*Fat*	*Protein*	*Total Calories*
Banana (average size) . .	113.7	7.3	6.4	127
Milk (one glass)	45.1	81.8	29.8	157
	158.8	89.1	36.2	284

Ripe bananas and certified milk are now a standard diet for undernourished children in many schools, tuberculosis camps and hospitals.

When combined WITH LEAFY VEGETABLES and OTHER FRESH FRUITS, bananas add a substantial and needed calorie value.

TESTS by eminent dietitians have shown that when fully ripe, or when cooked in the unripe state, bananas are easily digested and possess great value in the dietary of both young and old.

Send coupon for an interesting discussion of the nutritive qualities of the banana, contained in a 24-page booklet, "The Food Value of the Banana," by Skinner, Sherman & Esselen, Inc., Consulting Chemists.

UNIFRUIT BANANAS
Reg. U. S. Pat. Off.

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FRUIT DISPATCH CO., *Dept.* 72
17 Battery Place, New York, N.Y.
Please send me a copy of the free booklet, "The Food Value of the Banana."

Name.....

Address.....

.....

For complete index of advertisements refer to the Classified Directory

NEWS OF THE MONTH

MINNEAPOLIS CHOSEN FOR 1927 MEETING OF A. H. A.

Minneapolis, Minn., has been chosen as the place of the 1927 meeting of the American Hospital Association, which is to be held October 10-14. This is the first time that the meeting has been held in this city, although the 1914 meeting was held in St. Paul.

Both the meetings and exposition will be held in the new Municipal Auditorium, which is to be open in the fall, the convention being the second to be held in the new building. The auditorium is a seven-story building, providing one of the largest exhibition spaces of any similar building in the country. The two-level floor provides over 84,000 square feet of exhibition space, and the main hall will seat 10,545.

For the large meetings of the convention the back part of the balcony, which will be separated from the rest of the hall by steel curtains, will be available. This arrangement will provide seating space for 1,000. It is planned to hold the sectional meetings in the smaller rooms on the second and fourth floors and on the stage of the main hall, which will provide seating space for 500.

The exposition will be arranged on two levels connecting with ramps.

The Municipal Auditorium is centrally located and within walking distance of the leading hotels. The hotel headquarters for the convention have not yet been chosen.

NORTHWEST HOSPITAL ASSOCIATION MEETS

Attended by about one hundred hospital executives, doctors and nurses of the Pacific Northwest, drawn from the states of Washington, Oregon and Idaho, the Northwest Hospital Association convened January 3, in the Hotel Olympic, Seattle, Wash.

Two days were pleasantly and profitably filled with business, research, and hospital procedure mingled with cordial good feeling and social events, as the members of the hospital staffs, executives and leading physicians of the Northwest renewed ties of friendship and were entertained by their friends in the city.

One of the outstanding speeches of the two-day convention was that of Emily Loveridge, delivered on the last day. Miss Loveridge is a leader among hospital executives in the Pacific Northwest. She established the first nurses' training school in this territory and served for thirty-five years with the highest efficiency on the staff of the Good Samaritan Hospital, Portland, Oregon, of which she is now superintendent. She is also the president of the Northwest Hospital Association.

Miss Loveridge touched briefly on the profession of nursing, its wide scope, and the number of activities it embodies within its sphere. Among these she mentioned familiarity with x-ray photography, the administering of anesthetics and the broad field of social service, so important a phase of modern nursing.

Other speakers who made important contributions to the discussions of the two-day conference included R. W. Nelson, Portland, Oregon, who spoke on hospital salaries; C. J. Cummings, superintendent, Tacoma General Hospital, Tacoma, Wash., who discussed the workmen's compensation act; Dr. L. H. Laxson, Seattle, who spoke on anesthetics; Effie I. Raitt, University of Washington, Seattle; J. W. Efaw, Seattle, who took up the subject of hospital rates; Dr. Lester D. Palmer, Seattle, who discussed dietotherapy; Mrs. Spry, superintendent of nurses, Tacoma General Hospital, who spoke on nursing problems, and Dr. C. F. Eikenbary, who took up the subject of orthopedics.

EDUCATIONAL PROBLEMS TO FEATURE A. M. A. CONGRESS

Several topics of interest to hospitals, particularly those touching on the educational function, will be discussed at the annual Congress on Medical Education, Licensure and Hospitals of the American Medical Association, to be held at the Palmer House, Chicago, February 14-16.

The program February 15 will be given over to hospital problems, the afternoon session being devoted largely to medical education and the hospital. The morning program will open with a paper, "A Hospital Department of Physical Therapy," to be presented by Dr. Frank B. Granger, physician-in-chief, department of physical therapy, Boston City Hospital, Boston. This paper will be followed by one on the subject, "The Duty of the Hospital Staff to the Intern," by Dr. George E. Follansbee, chief of staff, St. Alexis Hospital, Cleveland, who will discuss the subject from the aspects of personal clinical instructions, clinical conferences, and the intern and the private patient.

Dr. N. P. Colwell, secretary, Council on Medical Education and Hospitals, Chicago, will speak on the subject, "The Hospital Function in Graduate Medical Education."

The afternoon program will be opened by Dr. Walter L. Bierring, secretary-treasurer, Federation of State Medical Boards of the United States, Des Moines, Ia., who will speak on the subject, "The Teaching Value of Postgraduate Clinics and Programs." This will be followed by a paper by Dr. Charles A. Gordon, chairman, committee on public health and medical education of the Medical Society of the State of New York, Brooklyn, N. Y., on the subject, "Taking Medical Education to the Practitioner." The afternoon program will be concluded by Dr. Louis B. Wilson, director, Mayo Foundation of Medical Education and Research, Rochester, Minn., who will speak on the subject, "Graduate Medical Education in Europe in 1926."

The program February 14 will be taken up with the discussion of subjects relating to medical education. The topics scheduled for discussion are: "The Need of Teaching Medical Ethics," by Dr. Arthur Dean Bevan, Chicago; "The University's Larger Function in Medicine," by Max Mason, president, University of Chicago; "Medical Education and Modern Life," by John H. Finley, editor, *New York Times*, New York, and "The Trend of Medical Education," by Charles F. Martin, dean, McGill University School of Medicine, Montreal, Que.

Talk that travels fastest of all!

—will your patients say a *"good word"* for *your* hospital when they tell about the food?

VISITORS always instinctively eye the tray a nurse brings to the patient. And conversation at visiting hours inevitably swings to the question "How do you like the food they give you?"

What sort of answer do your patients make? Their enthusiastic endorsement of the quality of food you serve is a big builder of good will and prestige for your institution.

Leading hospitals throughout the country recognize the opportunity to turn their food selection into a definite asset. To be assured of the finest varieties, grown and packed under ideal conditions they choose Libby's Foods. For wherever nature's yield is richest, there Libby has built a kitchen. Tender asparagus, a special, delicate variety of spinach, all kinds of full ripe fruits—these Libby packs at the moment of perfection, with all their sun-ripened flavor sealed in. There is this extra goodness in all Libby's 100 Foods.

Let the partial list given below suggest what Libby Foods you'd like to try, and order them from your jobber.

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Libby's 100 Foods

These Libby Foods of finest flavor are packed in special sizes for Institutions

Hawaiian Pineapple	Pork and Beans
California Asparagus	Olives
California Fruits	Pickles
Spinach	Mustard
Kraut	Bouillon Cubes
Jams	Beef Extract
Jellies	Chili Sauce
Blackberries	Catchup
Santa Clara Prunes in Syrup	Salmon
Loganberries	Boneless Chicken
Red Raspberries	Evaporated Milk
Tomato Puree	Mince Meat

The afternoon program includes the following subjects: "Altering the Medical Curriculum," by Dr. Ray Lyman Wilbur, president, Stanford University, Calif.; "Teaching Clinical Work to the Undergraduate," by Dr. Evarts Graham, Bixby professor of surgery, Washington University School of Medicine, St. Louis; "Medical Education for the General Practitioner," by Dr. William J. Mayo, Rochester, Minn.; "The Place of Preventive Medicine in the Medical Curriculum," by Dr. Walter S. Leathers, professor of preventive medicine, Vanderbilt School of Medicine, Nashville, Tenn. Dr. Leathers will discuss preventive medicine from the standpoints of the objectives of teaching preventive medicine, the factors in a scheme of instruction and coordination of instruction with other subjects. The program will conclude with the preliminary report of the commission on medical education, by Dr. Willard C. Rappleye, director of study, Commission on medical Education, New Haven, Conn. Dr. Rappleye's report will discuss the objectives of medical education, the question of whether present medical schools can produce enough physicians and how to effect a better distribution of medical graduates.

The meeting February 16 will be given over to the Federation of State Medical Boards and the program will include such subjects as enforcing the law against illegal practitioners, licensure requirements and the quarter system, safeguarding state board records, the enforcement of a medical practice act and reciprocity versus interstate endorsement.

The meeting of the State Medical Boards will be preceded by the annual banquet of the federation to be held on Tuesday evening.

METHODIST HOSPITALS CONVENTION TO BE HELD FEBRUARY 16-17

February 16 and 17 have been set as the dates for the 1927 annual meeting of the National Methodist Hospitals, Homes and Deaconess Association, to be held at the Edgewater Beach Hotel, Chicago. This year the meeting will be arranged according to the divisions of the association, separate sections being held for the three departments.

Wednesday, February 16, will be given over to the hospital department. The sessions will be presided over by the Rev. W. H. Jordan, Asbury Hospital, Minneapolis, Minn., president. The morning session will be taken up with the annual address of the president, the annual report of the secretary, G. T. Notson, superintendent, Methodist Hospital, Sioux City, Iowa, a devotional address and special music.

The noon luncheons will take the form of separate sectional meetings of the deaconesses, hospital superintendents, home superintendents, children's workers and finance secretaries.

The afternoon program will be taken up with hospital administrative problems, an open forum and round table discussions. The meeting will open with a devotional period conducted by the Rev. W. E. Wolf, Topeka, Kas. This will be followed by an address, "Problems of Hospital Administration," by the Rev. L. M. Riley, superintendent, Wesley Hospital, Wichita, Kas.

The open forum on hospital problems will be conducted by Dr. C. S. Woods, superintendent, St. Luke's Hospital, Cleveland. An address, "The Educational Mission of the Church Hospital," is to be presented by Blanche M. Fuller, R.N., superintendent, Nebraska Methodist Episcopal Hospital, Omaha, Nebr. This will be followed by a round table discussion on hospital problems to be conducted by the Rev. J. A. Diekman, Cincinnati. The session will be concluded with a pageant to be presented by a Chicago training school.

Thursday evening's program will consist of a banquet of the whole association present and will include devotions, special music, and addresses by two prominent churchmen.

Wednesday evening's session will be in the form of an inspirational service, consisting of devotions, music, and several addresses. Thursday morning's session will be given over to the department of homes, and the afternoon session to the deaconess department. At this session an open forum will be conducted by Alice Thatcher, superintendent, Christ Hospital, Cincinnati, and this will be followed by a business session.

FELLOWSHIPS OFFERED AGAIN BY MENTAL HYGIENE COMMITTEE

Fellowships for training in extramural psychiatry and for the training of social workers in psychiatric social work have been made available for another three-year period through the appropriation of $40,000 to the National Committee for Mental Hygiene by the Rockefeller Foundation.

The fellowships are designed to provide special training for physicians who have had previous hospital training in psychiatry and wish to prepare for extramural work in child guidance, delinquency, education, dependency, and industry. These fellowships are open to physicians under thirty-five years of age who are graduates of grade A medical schools and have had at least one year of training in mental hospitals.

The fellowships for social workers are available to applicants who hold a collegiate degree, who are under thirty years of age and are free to devote themselves to a period of professional work following their training.

COMING MEETINGS

American Hospital Association.
President, Dr. R. G. Brodrick, Alameda County Hospital, San Leandro, Calif.
Executive secretary, Dr. William H. Walsh, 18 East Division Street, Chicago.
Next meeting, Minneapolis, Minn., October 10-14, 1927.

American Medical Association.
President, Dr. Wendell Phillips, 40 West 47th St., New York.
Secretary, Dr. Olin West, 535 North Dearborn Street, Chicago.
Next meeting, Washington, D. C., May 16-20, 1927.

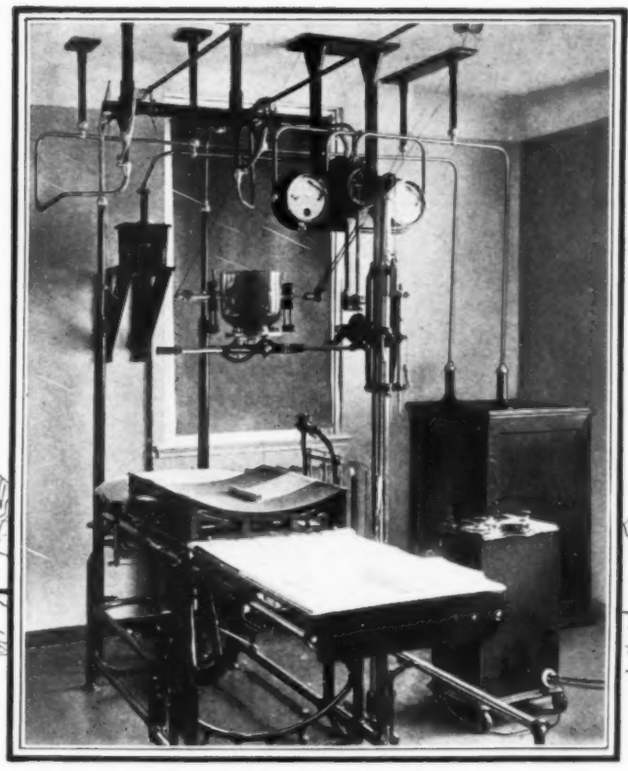
National Methodist Hospitals and Homes Association.
President, Rev. W. H. Jordan, Asbury Hospital, Minneapolis, Minn.
Secretary, G. T. Notson, Methodist Hospital, Sioux City, Ia.
Next meeting, Chicago, February 16-17, 1927.

Indiana Hospital Association.
President, Dr. M. F. Steele, Hope Methodist Hospital, Fort Wayne.
Secretary, Missouria Martin, Muncie Home Hospital, Muncie.
Next meeting, Evansville, April 7-8.

Hospital Association of New York State.
President, Dr. George B. Landers, Highland Hospital, Rochester, N. Y.
Secretary, Edgar C. Hayhow, New Rochelle Hospital, New Rochelle.
Next meeting, Syracuse, May 26 and 27, 1927.

Pennsylvania, Hospital Association of.
President, Howard E. Bishop, Robert Packer Hospital, Sayre.
Secretary, John M. Smith, Hahnemann Hospital, Philadelphia.
Next meeting, Philadelphia, April 20, 21 and 22, 1927.

American Protestant Hospital Association.
President, Robert Jolly, Baptist Hospital, Houston, Texas.
Secretary-treasurer, Rev. Frank C. English, Christ Hospital, Cincinnati.
Next meeting, Minneapolis, Minn., October 8, 9, 10, 1927.



Section of X-Ray Department, Anson General Hospital, Iroquois Falls, Ontario, Canada. Installation made by Toronto Branch of Victor X-Ray Corporation.

Victor Nation-Wide Service

THE Victor X-Ray Corporation has assumed a responsibility to the medical profession which does not end with developing and manufacturing X-Ray apparatus of the most approved type. It is a tenet of the Victor code that the operator of a Victor machine has the right to receive technical aid when he needs it.

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PROTECTIVE LEGISLATION IS URGED AT MICHIGAN MEETING

MORE vigilance as to state legislation affecting hospitals, the responsibility of trustees, liability of hospitals, fire insurance and nursing problems were the main topics discussed at the eleventh annual meeting of the Michigan Hospital Association held at Ann Arbor, January 6 and 7. The meetings were presided over by Dr. Willard L. Quennell, superintendent, Highland Park General Hospital, Highland Park, president of the association, and round tables were conducted by Mrs. A. Northam, R.N., superintendent, Sparrow Hospital, Lansing; the Rev. Father M. P. Bourke, St. Joseph's Hospital, Ann Arbor; Dr. W. L. Babcock, superintendent, Grace Hospital, Detroit; L. J. McKenney, chairman, board of managers, Highland Park Hospital; and Mary Wheeler, R.N., executive secretary, Michigan State Nurses' Association.

At the business session held on Friday morning, Dr. Harley A. Haynes, superintendent, University Hospital, Ann Arbor, was elected president for the coming year. The other officers elected were as follows: First vice-president, Dr. Charles E. Stewart, Battle Creek Sanitarium, Battle Creek; second vice-president, Margaret A. Rogers, superintendent, Children's Hospital, Detroit; third vice-president, Theresa M. Guest, superintendent, Bay City General Hospital, Bay City; secretary, Dr. Donald M. Morrill, superintendent, Blodgett Memorial Hospital, Grand Rapids; treasurer, Amy Beers, superintendent, Hackley Hospital, Muskegon; trustees, Dr. Quennell and Kate Jackson Hard, superintendent, Saginaw General Hospital, Saginaw.

Nursing Requirements in Michigan

From the beginning, interest was general among those attending the meeting and following invocation pronounced by Father Bourke, Dr. Quennell turned the meeting over to Mrs. Northam who first read the requirements of the Michigan Board of Registration of Nurses and Trained Attendants for the training schools. This consisted of a questionnaire upon which appeared queries regarding the hospital, the entrance requirements of the individual training schools, their organization and administration, program of studies, equipment, students' records, and living conditions at the school. Copies of the requirements were given those present.

Shirley Titus, University Hospital Training School, discussed the paper and suggested that while it was an easy matter to teach the students to spread the gospel of health it was a much harder matter to get the students and the graduate nurses to live up to these admonitions. She stated that a check was being kept at her school upon the various offenses against good health and that the students were being graded as nearly as it is possible to grade them upon this phase of activity. Many of the superintendents discussed the problem of keeping the students well and the economics of sick nurses. This led to the discussion of the subject of nurses' vacations and sick leave, with the consensus of opinion being that student nurses should have a two-weeks' vacation and a two-weeks' sick leave with pay. There were some objections to this plan as it was pointed out that student nurses were apt to "soldier on the job" if they knew that they were entitled to two-weeks' sick leave. Various plans were offered but none seemed to be applicable to all types of hospitals or to all localities in the state.

Father Bourke read an unusually interesting paper on the conditions of the small hospital in the state and made several helpful suggestions as to how these hospitals may be helped by contact with the larger hospitals. His paper was discussed by Mrs. Mary E. McDonald, R.N., superintendent, Sheldon Hospital, Albion, who told of her own organization and ended her paper with statistics from her annual report showing the percentage of occupancy, cost per day and other facts. Mrs. Charlena D. Letts, superintendent, Memorial Hospital, Owasso, also discussed the paper and explained that while her hospital was larger than the type usually designated as small, she had many of the problems of the small hospital.

Outlines Legal Problems

Dr. Babcock opened the afternoon session with an outline of the legal problems that the hospitals are facing in Michigan. He stated that in 1924 the powers of the taxation committee had been broadened so that they may now arbitrarily tax corporations not organized for profit and that this commission had recently investigated the Y. M. C. A. with a view to taxing this institution. He said that in all probability the hospitals would be next on the list and that it was the duty of the association to combat this move now.

He pointed out that the work of the legislative committee should be offensive rather than defensive, since that when simply defensive tactics alone were used, the community in general became suspicious of the committee's motives. There is a movement at the present time to have a representative—in no sense a lobbyist—stationed at Lansing who would go over every piece of legislation that is presented for medical organizations and hospitals and to report before these bills come up, so that the proper associations may act upon them before they become laws.

The question of liability of hospitals and liability insurance was also discussed followed by a discussion of fire insurance. John A. McNamara, executive editor, THE MODERN HOSPITAL, Chicago, outlined the various forms of fire insurance and explained the virtues and faults of each of them. It was the general opinion that by careful compliance with fire prevention measures, by periodic surveys and by the placing of the insurance with the most reliable companies, rates could be kept to the minimum.

The subject of subpoenas was also discussed in which the question of whether hospital records are privileged communications was brought up. Dr. Babcock pointed out that the only way a record could legally be brought into court was by a court order and that this was a long and difficult proceeding sometimes consuming as much as a year and that lawyers did not want to hold up their cases that long. It has been held in several states that hospitals records are a privileged communication and can be brought into court only by the patient himself or his lawyer.

Mr. McKenney's round table on trustees proved to be of more than ordinary interest, since several trustees were present at this meeting. The method of conducting board meetings, the problem of getting trustees interested and the advantages of getting and keeping them interested were discussed.

Miss Wheeler took three subjects for her discussion of the nursing situation in the state. "Educating the Public to Better Hospitals," "More Efficient Nursing" and "Propa-

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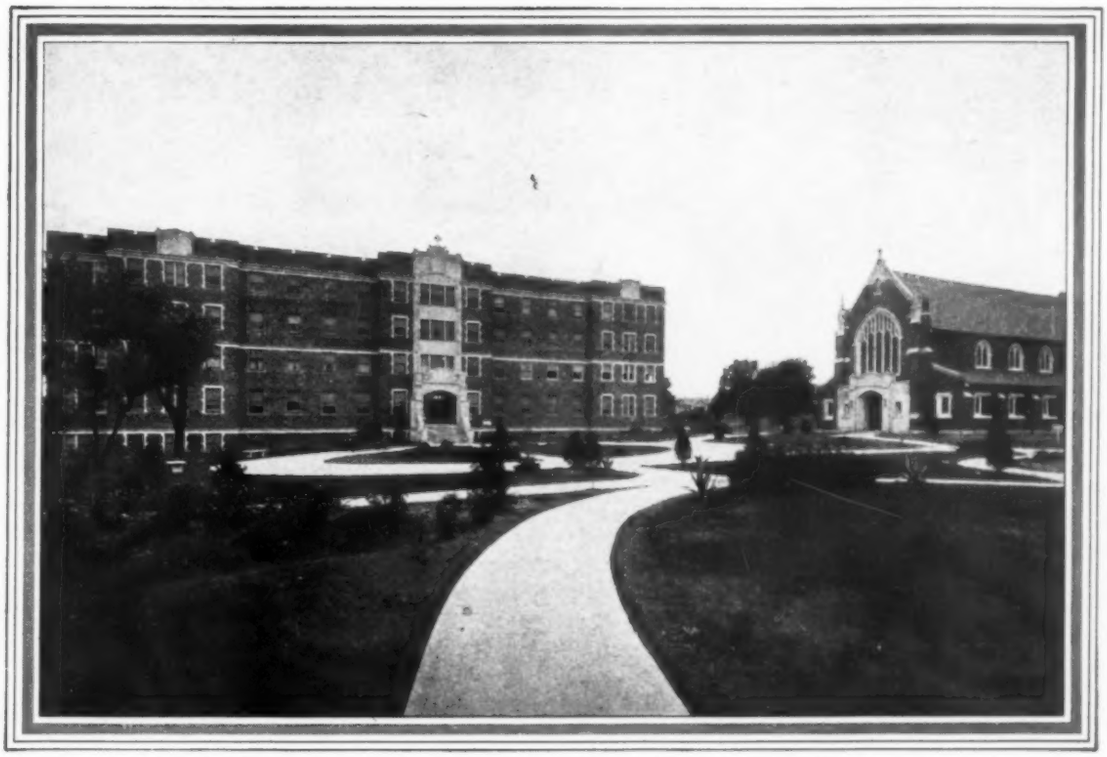

Crane plumbing and heating materials have been installed in the new Immanuel Hospital, Omaha, Neb. Architect, Harvey Peterson, Omaha. General Contractor, John L. Soderberg Construction Co., Omaha. Plumbing and Heating Contractor, John A. Anderson & Co., Omaha.

BEYOND THE ENDEAVOR TO MAKE A SALE

Crane is interested in selling hospital plumbing materials. But beyond that it is aware that every hospital installation is to serve the sick. It believes it the soundest selling method as well as a duty to instruct every Crane representative to co-operate with hospital heads in studying individual needs and in finding the most essential, the most satisfactory equipment. This is one of the reasons why so many new hospitals are installing Crane materials.

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ganda for Hospitals in Communities Where There Are None," were the three debatable topics. Newspaper publicity was put forward as the solution of the first problem and it was decided that some concerted action on the part of the association might prove of value in educating the public.

The ever present problem of better nursing was up for discussion and Dr. T. K. Gruber, superintendent, Detroit General Hospital, Detroit, stated that in his opinion more practical nurses and less specialized nurses were needed to solve the problem. He stated that he believed in well trained nurses but nurses trained either for practical hospital work or for administration work but not for both. Two classes of nurses, he stated, are required for the present-day situation. Miss Wheeler stated that some solution was needed and that the nurses associations both national and state were now surveying the field in order to determine just what would be the answer.

The ways and means for a state-wide suvey of hospitals and health facilities were suggested by Father Bourke as the first logical step in helping the small hospitals.

Mrs. Anna Kirk who was formerly superintendent, Hurley Hospital, Flint, was again appointed as executive secretary and will start at once upon a campaign to get the small hospitals to join the state association.

Dorothy Ketcham, University Hospital, Ann Arbor, reported that the year book of the association was in the making but that it would take at least another year before all of the laws of the state could be compiled and condensed. Father Bourke is the chairman of the committee on its publication and Miss Ketcham is also a member of the committee.

Upon request of Amy Beers, THE MODERN HOSPITAL Reading Course that was started with the January issue of the magazine was explained by Mr. McNamara.

The members of the association were entertained at a luncheon given by Dr. Haynes at the University Hospital after which a tour of this institution was made.

On Thursday evening the annual dinner was held at the Michigan Union.

BIDS RECEIVED FOR NEW YORK STATE PSYCHIATRIC INSTITUTE

Bids have been received for the New York State Psychiatric Institute and Hospital, which is to be erected as a part of the Columbia-Presbyterian Medical Center, New York. The building, according to plans, will tower above Riverside Drive to a height of twenty stories. The main part of the building, to be eleven stories, will constitute the hospital and out-patient clinics.

The hospital will provide beds for 210 patients and an entire floor will be given over to the children's department, and will be provided with school rooms, workshops and play rooms.

The tower, which will rise nine stories above the eleven of the main structure, will house the library, museum, record room, director's office, staff conference class rooms, and various research laboratories. The laboratories are designed for special studies and investigations in neuroanatomy, neurophysiology, experimental psychology and allied sciences and will provide teaching facilities for the medical schools of the city as well as for postgraduate study.

A large part of two floors will be devoted to the outpatient department, which is to be one of the major activities of the health center and will include psychiatric clinics of various types.

Personals

DR. PETER S. WINNER, for eight years superintendent of medical service, Chicago Municipal Tuberculosis Sanitarium, Chicago, has resigned to engage in private practice.

DR. GEORGE O. WELCH, who has been superintendent of the Minnesota State Hospital for the Insane, Fergus Falls, for thirty-four years has retired on account of ill-health. He will be succeeded by DR. W. L. PATTERSON, for the past eleven years assistant superintendent of the institution.

DR. WILLIAM J. TIFFANY, who has been director of clinical psychiatry at Kings Park State Hospital, Kings Park, N. Y., has been appointed superintendent of the hospital succeeding DR. MORTIMER W. RAYNOR, who resigned to become medical superintendent of Bloomingdale Hospital, White Plains, N. Y.

DR. B. F. SEAMAN, formerly superintendent, Warren County Tuberculosis Hospital, Glenn Falls, N. Y., has accepted the position of assistant medical director, Waverly Hills Sanatorium, Louisville, Ky. He will also act as associate professor of medicine at the University of Louisville.

DR. JOHN E. GORDON, for the past two years assistant medical superintendent of the Municipal Contagious Disease Hospital, Chicago, has accepted the position of medical director of the Herman Kiefer Hospital, Detroit, Mich.

DR. ARNOLD SHAMASKIN has been appointed medical superintendent of Montefiore Hospital, Bedford Sanatorium for Incipient Tuberculosis, Bedford Hills, N. Y. He was formerly clinical director of U. S. Veterans' Hospital, Rutland Heights, Mass.

ELEANOR E. HAMILTON, superintendent, Edward W. Sparrow Hospital, Lansing, Mich., has resigned to be superintendent of the Presbyterian Hospital, Newark, N. J. She is to be succeeded by Mrs. A. NORTHAM, R. N., formerly training school representative for the state of Michigan.

LOUIS M. TEFFEAU has resigned as superintendent of the Hurley Hospital, Flint, Mich.

J. B. FRANKLIN has accepted the position of superintendent of the Hermann Hospital, Houston, Tex. From 1911 to 1925 Mr. Franklin was superintendent of the Baylor Hospital, Dallas, Tex., but for the past two years he has not been in hospital work. He was first vice-president of the American Hospital Association in 1924.

DR. GEORGE M. MCCLELLAN SEAGER, superintendent, Michigan Mutual Hospital, Detroit, Mich., died recently.

DR. W. C. LINVILLE, first assistant physician of the State Hospital, Goldsboro, N. C., since 1914, has been named superintendent of the institution.

NORA WHITE, formerly superintendent of the City-County Hospital, El Paso, Tex., is now superintendent of the County Hospital, Globe, Ariz. Miss White succeeds MARTHA LAWRENCE, resigned.

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Mr. James Gamble Rogers, Architect
Marc Eidlitz & Sons, General Contractors

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DR. C. C. ATHERTON is the new superintendent of the Wisconsin Memorial Hospital, Mendota, Wis., succeeding DR. R. L. KENNEY, resigned. Dr. Atherton has for many years been superintendent of the Southern Wisconsin Home for Feebleminded and Epileptics at Union Grove, Wis., and has served on the staff of the Kankakee State Hospital, Kankakee, Ill.

ANNA MEDENDORP, superintendent, Glidden Memorial Hospital, De Kalb, Ill., for the past four years, has resigned.

DR. M. A. TARUMIANZ for the past six years assistant superintendent, Delaware State Hospital, Wilmington, Del., has been named superintendent of the hospital succeeding DR. WILLARD H. HANCHER, who has been named superintendent emeritus.

MABEL F. PITTMANN, formerly instructor of nurses, is now acting superintendent, Middletown Hospital, Middletown, Ohio.

DR. A. H. SMITH, formerly of the staff of the Niagara County Sanatorium, Lockport, N. Y., is now superintendent of the Livingston County Tuberculosis Sanatorium, Pontiac, Ill.

RALPH M. HUESTON, formerly superintendent, Austin Hospital, Chicago, is now superintendent of the Silver Cross Hospital, Joliet, Ill., succeeding DELLA DE LONG resigned.

LIEUT.-COL. MARTHA HAMON, for the past six years superintendent of the Brooklyn Nursery and Infants' Hospital, Brooklyn, N. Y., has resigned to accept the appointment of director of the Salvation Army social service work in the new Southern territory, with headquarters in Atlanta, Ga.

DR. WILHELM H. VORBAU, recently superintendent of the Institution for the Feebleminded at Lima, Ohio, has been appointed head of the State Hospital for the Criminal Insane, Lima, succeeding DR. CHARLES H. CLARK, deceased.

DR. ARTHUR R. ABEL is the new pathologist at the Methodist and Lutheran Hospitals, Sioux City, Ia.

CATHERINE REARDON, formerly head nurse at the San Joaquin General Hospital, San Joaquin, Calif., and at Stanford Hospital, Stanford, is opening up a private hospital in Manteca, Calif.

L. BLANCHE FREDERICKS, R. N., formerly superintendent, Ellsworth Hospital, Ellsworth, Kas., is the new superintendent of the Arkansas Children's Hospital, Little Rock, Ark.

RACHAEL A. METCALFE, superintendent, Maine General Hospital, Lewiston, Me., was recently honored at a banquet given by the nurses of the institution to celebrate her twentieth anniversary as head of the hospital.

L. MAE PRIDDLE has accepted the position of superintendent of the Warren General Hospital, Warren, Pa. For some time she has been acting superintendent of the institution.

DR. C. C. TIFFIN has been appointed superintendent of the King County Hospital, Seattle, Wash.

DR. KANO IKEDA, formerly pathologist at the Minneapolis General Hospital, Minneapolis, Minn., is now pathologist and director of laboratories at St. Luke's Hospital, St. Paul, Minn.

GENEVA BRIDGMAN, for the past eleven years, assistant superintendent, Decatur and Macon County Hospital, Decatur, Ill., has accepted the position of superintendent of nurses at the Wabash Railroad Employees' Hospital, Decatur.

WOODWARD H. REED, for eight years manager and assistant secretary, People's Hospital, Akron, Ohio, has resigned his position to move to Winterhaven, Fla. He will be succeeded by H. E. FRAZIER, Akron.

DR. J. WARREN WHITE, surgeon in charge of the Shrine Hospital, Honolulu, Hawaii, has been appointed surgeon in charge of the Shriners' Hospital for Crippled Children, Greenville, S. C. He will take charge of the hospital on April 15.

DR. H. B. FRALIC, formerly in charge of the U. S. Veterans' Hospital, St. Paul, Minn., has assumed charge of the new U. S. Veterans' Bureau Hospital, Fort Snelling, Minn.

DR. H. GRADY CALLISON has been appointed superintendent of the Newberry County Hospital, Newberry, S. C., succeeding LILLA BEAM, resigned.

DR. VICTOR A. AIMONE has been named superintendent of the Mt. Alto Hospital, Washington, D. C., succeeding DR. H. C. VAN DAHM. Dr. Aimone has been assistant medical officer at Mt. Alto Hospital.

WESTERN ASSOCIATION FORMED AT NORTHWESTERN MEETING

The formation of the Western Hospital Association was one of the important results of the meeting of the Northwest Hospital Association held at Seattle, Wash., January 3-4. The new organization was formed in response to the suggestions of those present for an association to include the hospital executives of the entire western field, which numbers more than five hundred superintendents.

W. F. Vail, superintendent, Pasadena Hospital, Pasadena, Calif., was elected president, and the headquarters of the association will thus be located at Pasadena. The other officers are first vice president, George Haddon, business manager, Vancouver General Hospital, Vancouver, B. C.; second vice-president, Emily Loveridge, superintendent, Good Samaritan Hospital, Portland, Ore.; secretary, C. J. Cummings, superintendent, Tacoma General Hospital, Tacoma, Wash.; treasurer, L. G. Reynolds, superintendent, Methodist Hospital of Southern California, Los Angeles.

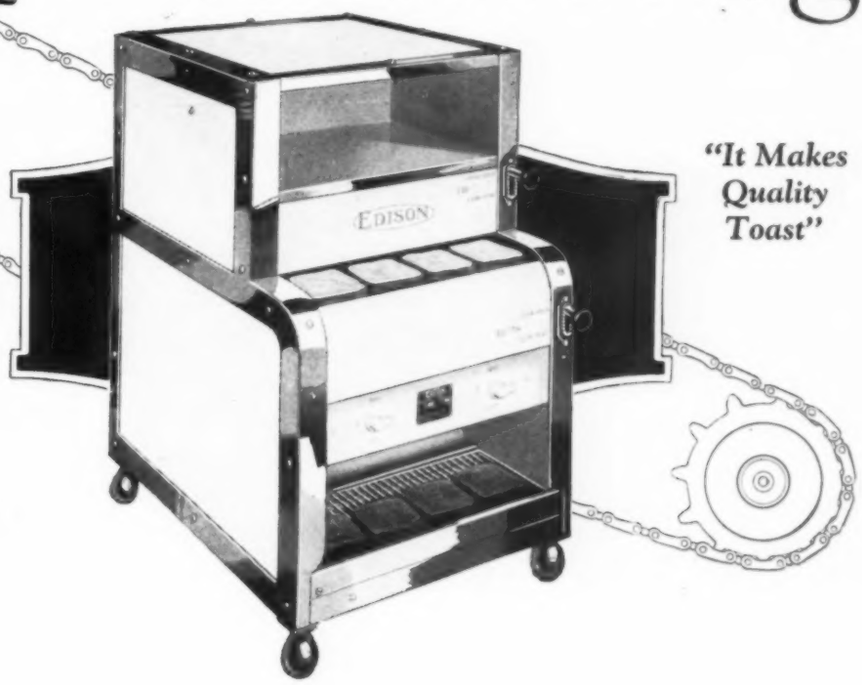
Dr. Malcolm T. MacEachern, associate director, American College of Surgeons, hospital activities, Chicago, was elected honorary life president of the association.

The objectives of the new association, as expressed at the meeting, are a closer union between the hospitals of the Western states to promote interchange of ideas and improvements and a comparison of the best methods of hospital procedure.

RECEIVING HOSPITAL NOW NAMED DETROIT GENERAL

The Receiving Hospital, Detroit, Mich., which has operated under that name for the past several years, is in the future to be known as the Detroit General Hospital, according to Dr. T. K. Gruber, superintendent. It is a 300-bed general hospital serving the city and its status will not be changed with its new name.

Announcing



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MODERN hospitals will be interested in this new type of toaster which is designed to meet the needs of hospital kitchen service.

The new Edison Conveyor Type Toaster will deliver perfect toast automatically at the rate of 1 to 400 slices per hour. The bread is placed on the conveyor at the front of the toaster and it then passes inside the device through heating elements so that BOTH sides of the bread are toasted at the same time.

The toast then comes out of the toaster at the front ready to serve. If desired, it may be kept in the warming compartment at the top, which is heated automatically when the toaster is in operation.

The new Edison Automatic Toaster attracted considerable attention at the convention of the National Hospital Association, where it was exhibited to hospital men for the first time. Experts stated that it fits exactly the needs of modern hospitals and provides a means of making toast long wanted by hospitals.

We shall gladly send you additional information regarding this new toaster. Or consult your kitchen equipment distributor.

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GREATER HOSPITAL CONSTRUCTION IS PREDICTED

Hospital construction will show further gains during the coming years according to the annual forecast of the *Architectural Forum*. Increases are expected in the North Atlantic states and in the southeastern and southwestern states, and in the entire United States it is predicted that 5.6 per cent of the total construction will be hospital buildings. There are nineteen classifications, with the highest percentage office buildings at 12.7 per cent. Following are the classifications and the amount each will probably spend for construction in 1927:

Automotive	$137,132,500
Banks	158,657,500
Apartments	608,000,000
Apartment Hotels	208,237,500
Clubs, Fraternal, etc.	207,840,000
Community and Memorial	96,632,500
Churches	314,900,000
Dwellings, *under $10,000	115,820,000
Dwellings ($20,000 to $50,000)	116,480,000
Dwellings (over $50,000)	90,330,000
Hotels	336,767,500
Hospitals	272,947,500
†Industrial	354,790,000
Office Buildings	617,627,500
Public Buildings	270,277,500
Schools	566,240,000
Stores	107,067,500
Theaters	199,652,500
Welfare, Y. M. C. A., etc.	77,417,500
Total value of new buildings	$4,856,817,500

The forecast shows that the requirements for hospital building during 1927 will be greater than the requirements of twelve other classes of construction, namely: Buildings for automotive work, banks, apartment hotels, clubs, community and memorial buildings, three types of dwellings, public buildings, stores, theaters and welfare buildings, such as the Y. M. C. A. The total requirements are conservatively placed at $272,947,500. Churches and hotels are the two classifications that directly precede hospitals, and their requirements are respectively estimated at $314,900,000 and $336,767,500.

NORTHWESTERN MEDICAL CAMPUS TO HAVE FIVE HOSPITALS

Adequate facilities for middle-class patients are promised in the hospitalization program of Northwestern University, according to the plans recently outlined by Dr. Irving S. Cutter, dean, Northwestern University Medical School, Chicago.

Five hospitals are to be erected on the McKinlock Campus, Chicago, including Passavant and Wesley Memorial hospitals, and later the University, Children's and Maternity hospitals. Definite provision is to be made in these hospitals for people of moderate means. Out of the 400 rooms in the first unit of Wesley Memorial Hospital, according to Dr. Cutter, 120 beds will be available for patients who are not able to pay full cost.

In the proposed University Hospital it is planned to charge patients at the minimum cost of operation, the price of rooms to be around $4 or $5 a day, or the minimum charge that will meet operating expenses.

*Architects plan only 20 per cent of small houses, multiply figures by five for grand total.
†Architects plan 50 per cent.

The Maternity and Children's hospitals, which will have about 200 or 250 beds each, will also be conducted on the same basis as the University Hospital. These hospitals are to be staffed by the physicians and surgeons on the teaching and dispensary staffs of Northwestern University Medical School and the hospital facilities will be used for teaching and research for the students of the medical school.

DISCUSS TENTATIVE PLAN FOR DEMONSTRATION EXHIBIT

A meeting was held at Lalumiere Hall, Marquette University, Milwaukee, Wis., on January 10 for the purpose of discussing tentative plans that have been made for an International Hospital Clinical Congress and Exposition. It was proposed to hold this affair in June between the short term and the six-weeks' term of the College of Hospital Administration of Marquette University and to be under the auspices of the college.

Dr. John R. Hughes, dean of the college, presided, and expressions of opinion were given by Father Moulinier, regent of the university, Father Fox, president of the university, Asa S. Bacon, superintendent, Presbyterian Hospital, Chicago, Rev. Herman L. Fritschel, superintendent, Milwaukee Hospital, Milwaukee, Dr. William H. Walsh, executive secretary of the American Hospital Association, Richard E. Schmidt, Schmidt, Garden and Erikson, Chicago, Thomas J. Rudsil, Will Ross, and Frank Fisher representing the Hospital Exhibitors' Association.

The plan embraced the holding of clinics and demonstrations whereby the exhibitors would equip separate units at which the demonstrations could be held. No decision was made as to the fruition of the plan as outlined.

NURSING COMMITTEE OF CHICAGO MEDICAL SOCIETY REPORTS

The recent report of the special committee appointed by the Chicago Medical Society to study the nursing situation in the city contains several recommendations with respect to the organization, hours and compensation for hospital nursing.

The committee divides patients into the three usual groups, with respect to economic status, and with respect to care divides them into three groups, namely, the general run of medical, surgical and obstetrical cases; patients whose illness is such as to require more than ordinary care, and patients whose condition is such as to demand practically constant attention.

With respect to the first class, the committee feels that the reputable hospitals of Chicago are rendering adequate service to the first class. For the second class, it believes that one full-time graduate nurse can give the required additional attention to patients of this class, and that patients in the third class should have two nurses each on half time.

The committee offers the group plan as the cure for the present high cost of special nursing and with respect to its organization recommends that the hospital provide service through graduate nurses in its own employ, that it arrange the groups and that patients deal directly with the nurse.

Regarding hours and compensation, the committee recommends the continuation of full-time or twenty-four-hour special duty as it exists in nearly all the hospitals, half-time or twelve-hour duty for all cases of severe illness, and group nursing, the compensation for group nurs-

Surveys

A HOSPITAL campaign has the best chance of success when it is based on a soundly-conceived plan of hospitalization and finance. To help busy trustees obtain the facts which they need in working out such a plan, we are prepared to make a preliminary survey of their hospital and community. This examination is critical and interpretive rather than exhaustive. In several recent instances our surveys have materially aided trustees to fit their building projects more accurately to the needs and resources of their communities.

These preliminary surveys are made without charge and of course without obligation to the hospital.

WILL, FOLSOM AND SMITH

Directors of Campaigns for Hospitals Exclusively

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New York

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ing not to be greater than that for full-time service to one patient.

The committee also offered the resolution that the Council of the Chicago Medical Society request the trustees to institute and maintain a registry for nurses.

PENNSYLVANIA MEDICAL CENTER PLANS EXTENSIVE DEVELOPMENT

Plans for the extensive development program for the medical school and hospital of the University of Pennsylvania, Philadelphia, were discussed at a dinner and conference, January 10, at which over 1,000 medical men and educators were present.

One of the objectives of the program is the erection of suitable buildings to house the clinics for each separate medical and surgical specialty, which is to be presided over by its chief who will also be the senior professor of that subject in the medical school.

Plans call for a 1,000-bed hospital to be staffed by 100 interns and 500 nurses, and an administration building to be twelve stories high and contain 400 beds. This is to be the central unit of the group. The new buildings will supplant most of the older hospital buildings.

According to Dr. Alfred Stengel, professor of medicine at the university, the program will include the establishment of a number of foundations, clinics, as well as a medical press to issue pamphlets on the latest developments in medicine and to offer general medical information to the public.

STATE TUBERCULOSIS HOSPITAL TO BE ERECTED AT ANN ARBOR

Ann Arbor, Mich., has been chosen as the site for the new state tuberculosis hospital of Michigan, and work on the new hospital will begin in the spring. According to State Senator Charles E. Greene, chairman of the joint committee appointed to make the selection, the old tuberculosis hospital at Howell will not be abandoned but will be used as a convalescent home.

The state legislature has appropriated $500,000 for the building and, according to Senator Greene, a similar amount will probably be asked of the next legislature, for the equipment and maintenance of the hospital. The institution will be built on state-owned land and will be used as a teaching hospital for the medical students of the university, and the nursing service will be furnished from the university hospital training school.

MICHIGAN HEALTH INTERESTS HOLD LEGISLATIVE CONFERENCE

Ninety-four representatives of the Michigan hospital and medical associations, the state health department and state dental and nursing organizations attended a legislative conference held recently at Lansing.

Each organization presented its legislative problems and the decision was reached to create a central legislative bureau composed of representatives of each organization to correlate the needs of these health interests with respect to legislation.

A proposal was made at the meeting that a bill be introduced into the state legislature making it possible for counties of the state to employ health officers and to establish health boards as well as to employ nurses, dentists and physicians.

ANNOUNCE $8,500,000 PROGRAM FOR CONNECTICUT HOSPITALS

An $8,500,000 building program for the improvement of state hospitals and other humane institutions of the state of Connecticut has been announced by Governor Trumbull. The plans announced include a capital expenditure for a ten-year period, the main item of which is to be for the erection of a new state hospital in the southwestern part of the state, possibly at Bridgeport.

The second largest portion of the appropriation will be for the enlargement of the Mansfield State Training School and Hospital, Mansfield Depot. An addition will also be made to the Connecticut State Farm for Women at Niantic.

It is planned eventually to have the new state hospital a 2,000-bed institution.

CLEVELAND HOSPITALS TO COOPERATE IN COLLEGE OF PHYSICIANS' PROGRAM

Several Cleveland hospitals will cooperate with Western Reserve University in the program of the eleventh annual clinical session of the American College of Physicians, to be held in Cleveland, February 21–25.

Opportunity will be given everyone attending the meeting to see the entire hospital equipment of the city and to study its clinical material and educational work.

During the mornings clinics and demonstrations will be held at the various hospitals and in the laboratories of the university.

The American College of Physicians has extended an invitation to all qualified physicians and laboratory workers of the country to attend the clinical congress.

GAS FELLOWSHIPS ESTABLISHED AT WESTERN RESERVE UNIVERSITY

Western Reserve University, Cleveland, announces an annual grant from a manufacturing concern, of two thousand dollars for the establishment of fellowships for the study of gases, to be carried on under the direction of Dr. H. S. Booth, department of chemistry of the university. The fellowships will be devoted to pure science researches on gases, with particular emphasis on the gases of value as anesthetics. Research on the subject will commence with the beginning of the semester this month.

DR. CORWIN TO COMMENCE COURSE AT NEW YORK UNIVERSITY

Dr. E. H. Lewinski-Corwin, director, Hospital Information and Service Bureau, United Hospital Fund of New York, and executive secretary, committee on public health relations of the New York Academy of Medicine, New York, will commence his course, "Community Relationships in Hospitals," at New York University department of hospital and institutional administration this month.

CLINIC TO BE NAMED FOR DR. BILLINGS

The new clinic of internal medicine of the University of Chicago Medical School, Chicago, has been named in honor of Dr. Frank Billings, in recognition of his long and distinguished service as a teacher and in medical research work at the university. Dr. Billings has been active in hospital work, having been the first president of the American Conference on Hospital Service.

INVESTIGATE the Winner!

THE Champion Dish Washing Machine is all that its name implies. A real factor in reducing kitchen costs and increasing kitchen efficiency. Everything about the Champion is superior—design and construction, simplicity of operation.

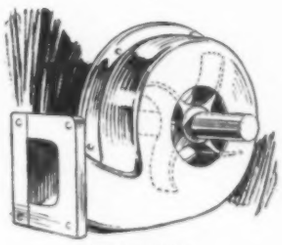
No Champion tank ever wore out! Rust and the chemical action of waste foods do not affect the husky galvanized, *cast iron* tank—made in one piece, without seams.

Operation of the Champion is simplicity itself. All controls are at the front—all working parts are handy and easily removed. Bearings are oil-less, doing away with the constant attention of your kitchen help. The Champion is built for all-around service and satisfaction.

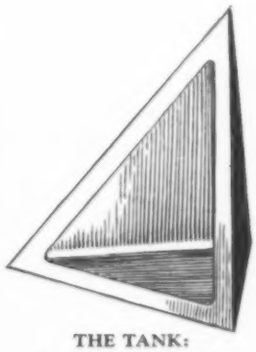
Investigate—and you choose the Champion! It reduces labor costs by eliminating lost motion and breakage of dishes. It will serve you indefinitely.

Made in three types, in different sizes for every kitchen need. Capacity up to 20,000 pieces per hour.

Send for list of prominent users, catalog and detailed information.



THE PUMP:
Note all-around clearance of impellor blades—the simple construction. Scientifically built—it cannot go out of order.



THE TANK:
A cross section of husky, cast iron, galvanized Champion Tank. One piece—no seams! Withstands the action of rust and chemicals in waste foods.

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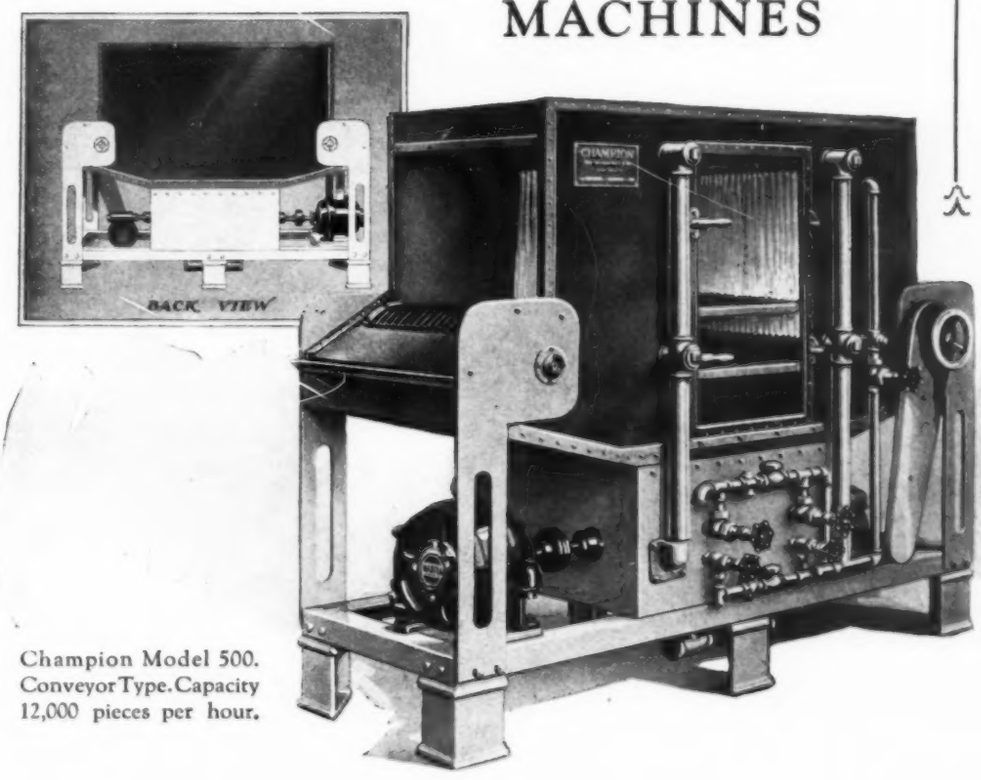
DISH WASHING MACHINES



Champion Model 500. Conveyor Type. Capacity 12,000 pieces per hour.

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Formerly THE HAMILTON-LOW COMPANY
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BUILT LIKE A BATTLESHIP

Your Everyday Problems

A department devoted to the informal discussion of problems arising in the everyday life of the hospital superintendent.

What Should be the Character of the Annual Report of a Hospital? How Much Statistical Material Should It Contain?

There is great variation in the practice of hospitals everywhere as to the nature and extent of the institution's annual report. Fortunately, many hospitals have adopted a uniform method of reporting the expense of conducting their institutions. This is of the greatest convenience to hospital executives and boards of trustees, who are desirous of learning such facts as departmental gross and net per capita costs. This practice is to be encouraged.

The National Committee for Mental Hygiene has compiled a detailed yet practical scheme for the classification of patients admitted into institutions for the treatment of those mentally ill. There has been no such universally accepted scheme, however, for general hospitals.

It is from the reports of hospitals everywhere that statisticians are able to compile records of the incidence of various types of disease and the results gained by treatment.

From the standpoint of the addition to medical information, the hospital, it appears, should publish a carefully compiled list of diseases treated, showing the complications encountered and the results obtained.

This information is also essential to young men and women who are contemplating entering any institution to prepare themselves for the professions of medicine or nursing.

The annual report is also essential from the standpoint of informing the members of the community of the activities, aims and equipment of the institution which they are asked to support.

Dependent upon the hospital's purse will be the completeness of this effort. The use of photographs is, of course, expensive, but the picture ofttimes serves, in even greater measure, the same purpose as does the written word.

It would seem that the annual report, however, must be carefully prepared, so as not to consist of an exposition of matters that should chiefly concern the superintendent and his co-workers. Neither should it contain an expression of personal beliefs in which the public can have but little interest. The urgent needs of the hospital, it would appear, might find a proper place in this document, provided that they are presented in an attractive and interesting manner.

As far as the circulation of the report is concerned, most scientific and governmental libraries desire a file of the reports of many of the country's hospitals.

It is from the annual reports of other institutions that the hospital superintendent gleans much as to the methods that appear successful in other hospitals, and from which he secures much comparative information as to the practices in his own.

If the hospital publishes from time to time a small periodical (and this appears to be a growing and worthwhile practice), local information as to the needs of the hospital would find, perhaps, a more suitable place here than in the formal report, the circulation of which carries it farther afield.

How Long Before the Hour Set for an Operation Should the Patient be Taken to the Operating Suite?

The construction of the hospital must be considered before any definite answer can be made to this question. The farther the operative suite is removed from the surgical wards the more time, of course, will be required for the transportation of the patient to the operating clinic.

Some surgeons, when they are facing a busy morning's work, prefer to have their patients all brought to the clinic at the same time; or else to have always at hand at least one patient in addition to the one who is undergoing operation. It appears to be a distinctly bad practice to move a patient from his ward or room to the operating suite any considerable period of time before the operation actually begins. Previous reference has been made in THE MODERN HOSPITAL* to the inadvisability of augmenting the fear and mental unrest that always exist in the patient's pre-operative mind, by unnecessarily subjecting him to the sights, sounds and odors of a busy operating suite.

Various hospitals have written into their rules a definite period of time before operation at which the patient must be in the clinic. This is usually placed at fifteen minutes, although where organizations have been greatly perfected a shorter period may serve the purpose of not causing delay to the surgeon by requiring him to wait for his next patient.

Usually the assistant at operation (particularly in surgical teams that have gained much cooperative skill), at the proper time notifies the nurse of the operating room to send for the next patient. This can be done quietly, without disturbing the surgeon's work.

In abdominal operations when the surgeon is ready to insert his skin sutures the assistant usually sends word to the anesthetist to start the ether on the next case. So accurately can the time required for the placing of dressings on the patient being operated on, the removal of gowns, the scrubbing of hands and the donning of new sterile gowns, be gauged, that the waste of the surgeon's time is negligible. Particularly is this true, if the operative suite is equipped with several operating rooms, and the surgeon and his assistant need but walk to another room, which has been prepared for the next operation.

It appears to be an eminently fair practice, insofar as the welfare of the patient is concerned, for the hospital superintendent to insist that rules be both made and enforced that will prevent patients being brought to the

*Vol. XXVII, p. 76, Oct., 1926.

Make This Simple Test!

Put a small quantity of Petrolagar into a glass or test tube.

Then put in an equal quantity of water.

Shake—and see the perfect mixture that results.

This is when "Oil and water mix!"

It proves the superiority of Petrolagar as an intestinal lubricant, because this emulsification of pure mineral oil with agar mixes intimately with the intestinal content and gives thorough lubrication, with a lessened tendency to leakage.

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clinic long before their operation is actually to begin, rather than remaining in their rooms or wards until the time when the surgeon can immediately undertake the treatment of their case.

How May a Resident Physicians' Medical Society be Organized and Stimulated to Do Its Best Work?

Every hospital should endeavor to maintain a medical society which has as its active members resident physicians and even representatives of its junior visiting staff. In institutions with at least ten interns an active medical society can be formed with this nucleus. The young physician should learn early the value of being able to express his medical opinions clearly and fluently in the presence of his colleagues. There is no better time to begin to acquire this ability than during his hospital intern days.

Such an association usually has its inception as a result of a scientific stimulation that arises from a member of the visiting staff or from the superintendent of the hospital. One of the older interns, from the standpoint of service, may be appointed as temporary president. The executive committee of the hospital's medical board may then meet with this intern, or with a committee from the intern staff, to draw up by-laws and to adopt measures to secure the cooperation of the visiting staff. Sometimes a patron, who is often a senior member of the hospital's medical board, is chosen, this physician being present at all meetings. The presence of a visiting chief does much to stimulate the discussion of papers and case presentations by members of the intern body.

At each meeting of the hospital's clinical society, as it may be called, one or more patients are presented by interns, and each chief is given an opportunity to elaborate on the diagnosis made and the treatment employed.

Ofttimes it is the superintendent of the hospital who is the sustaining force that carries over the interest in the society from one intern group to another. Nor does the superintendent need to be a physician in order to do fine work in stimulating this hospital effort.

There appears to be no better way to maintain a high hospital medical morale among the resident staff, which will manifest itself in better and more zealous care of the hospital's patient and in the acquiring of a high post-mortem percentage, than by the presence of an active intra-hospital medical society.

To this end the hospital might even arrange for an informal dinner once a year for its resident staff, organized as a medical society, at which time one or more distinguished medical men might be invited as guests of this society.

No matter how auspicious the beginning of the hospital's medical society, its continuance and permanence will depend largely upon the interest and effort of the superintendent and the members of the visiting staff.

How Can the Marring of Walls by Beds and Wheel Chairs Be Prevented?

No room or elevator door is known that is wide enough to permit a bed or stretcher always to pass through without striking the jamb or wall beyond. It is true that the swivel wheels on these pieces of equipment make handling not an easy matter, but injury to walls is after all largely a matter of carelessness, not always on the part of an orderly either.

The presence of a proper place on each floor for the temporary storage of diet trucks, wheel chairs, and stretchers appears advisable. This room or alcove need not have a door, but should have a five-foot or six-foot entrance, each side of which is protected with a so-called "bull-nose" guard. The wall may be of marble, terrazzo, or some material not easily marred. Elevator entrances and corridor doors may be protected from injury by wheeled equipment in the same way. Cove bases in the wards and dressing rooms, which project on a thirty-five to a forty-five degree angle, far enough from the walls to prevent beds from being pushed into them, have proved useful. Wooden chairs and bed rails, set into the plaster the proper distance from the floor, have also been employed for this purpose.

In hospital wards, in which the above suggested structural protection cannot be easily provided, properly placed rubber bumpers on beds, stretchers, etc., such as are furnished by reliable equipment manufacturers, will be found serviceable in protecting walls. Indeed, a three-inch rubber tired swivel wheel, if placed on beds and other hospital furniture, will serve the same purpose, the tire coming in contact with the baseboard before any part of the bed strikes the wall.

Sufficient structural protection devices and care, and then more care of hospital property by the personnel, is in the last analysis the answer to this problem.

What Should be the Nature and Extent of Fire Drills in an Acute General Hospital?

Fire drills are of the greatest use in the protection of the lives of all workers in factories, pupils in schools, nurses in homes and all others who live in a congregate way. When it comes to the question of carrying out fire drills in hospitals the situation is greatly altered.

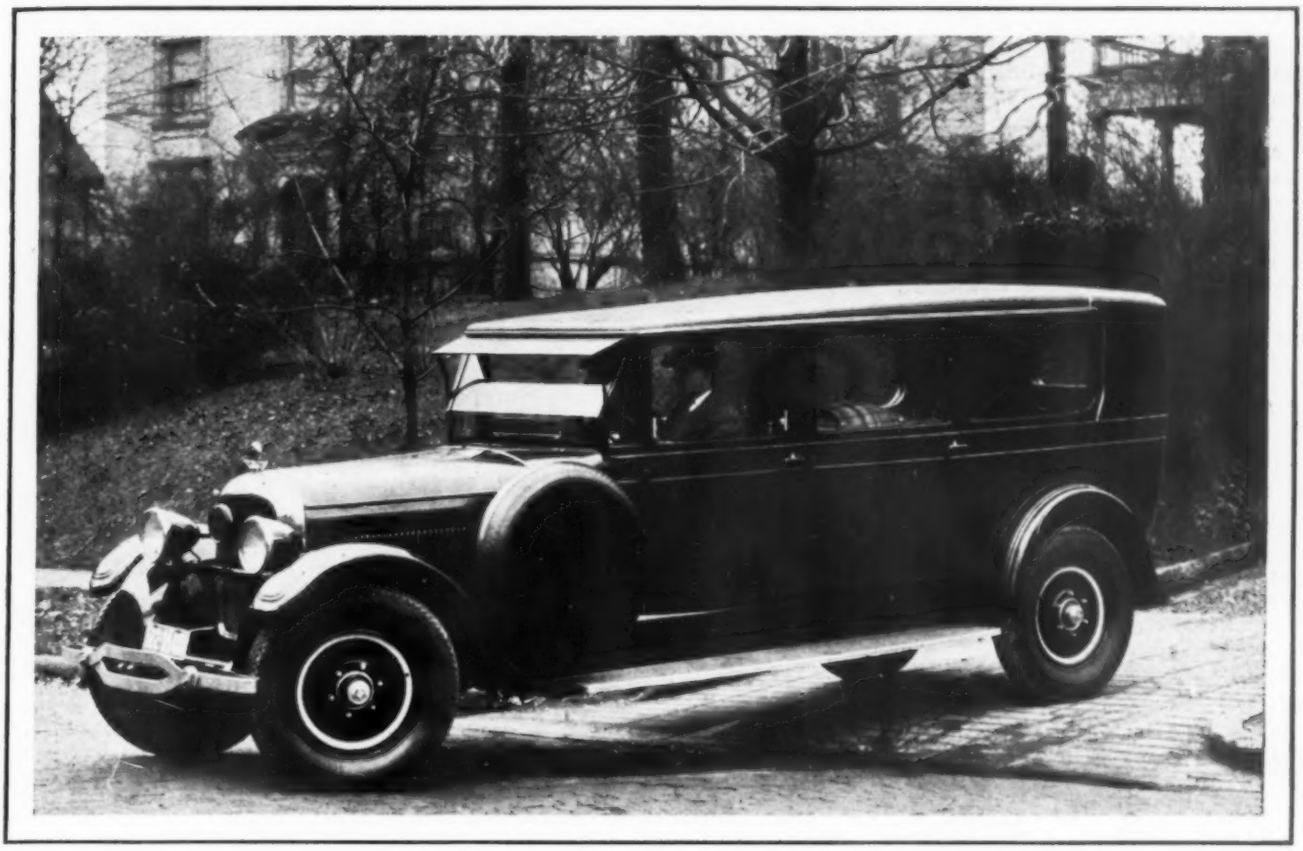
The superintendent of a hospital has two considerations that he must constantly bear in mind. He must spare his patients the sudden fright that ofttimes is produced by the ringing of fire alarms, and the hurry and bustle that is incident to most fire drills. He must also remember that no hospital fire drill can approach in its detail that of a building housing well persons.

The average hospital fire drill concerns itself mainly with the attaining of one end, that is, the removal of patients who might be endangered either by fire itself or by panic, which is often the greater danger of the two. The hospital force is usually not scientifically trained to make much impression in extinguishing a fire that has gained considerable headway. Indeed while fire extinguishers and hose are essential, and while the use of this equipment by hospital employees is most efficacious at the start of a conflagration, the most effective work will be done by the nearest fire company upon its arrival on the scene, which is usually prompt.

Fire drill in an acute hospital, then, usually consists of but the organization of doctors, nurses, attendants, and other employees, with the aim of speedily removing patients to the ground or to some building adjacent to the one in which the fire exists.

If the hospital is not equipped with some sort of fire alarm gong, the conduct of a fire drill is almost impossible. If such equipment, however, is available the monthly sounding of a preordained signal, with the assumption of definite stations by members of the hospital personnel, is about the extent of a fire drill in a hospital receiving acute patients.

Fortunately many hospitals built within the past few years are fire-resisting, and while this type of construction does not guarantee against the burning of inflammable



"Nothing Finer Ever Built"

—FOREST G. THORNE

WHEN the Horace F. Wood Auto Livery of Indianapolis, Indiana, purchased a Studebaker Ambulance, price was of secondary consideration.

Forest G. Thorne, manager of the company, commenting on this unit said "Its beautiful lines and finish and the reputation of the Big Six motor were the deciding factors. The design, riding qualities and luxury of the car have a wonderful appeal. Nothing finer was ever built." This conviction of Studebaker quality was also responsible for the recent purchase of 18 Studebaker cars by that company.

Studebaker engineers have incorporated in the new Studebaker Ambulance many refinements approved by the most critical.

The full steel panelled body is mounted on a special built chassis (158-inch wheelbase) fitted with long, resilient springs. Soft, yielding balloon tires cushion road shocks, providing exceptional riding comfort.

Comfort and Protection for Patients

In the patient's compartment every convenience is provided. Trimming is in soft, genuine, gray leather, easy to clean and keep sanitary. Genuine mohair upholstery is optional. Roller shades to match are fitted to the doors and windows. Flower vases, dome and rear corner lights, an electric fan and special heater are standard equipment.

At the rear, a 37-inch door opens into the roomy patient's compartment. When conditions prevent rear loading, the improved Bomgardner folding cot (standard equipment) may be loaded from either side door.

Speed for any emergency is supplied by the famous Studebaker Big Six engine, which according to the ratings of the Society of Automotive Engineers, is equalled in rated horsepower by only seven of America's highest priced cars. Smooth-acting four-wheel brakes give positive car control.

The durability of this chassis is evidenced by a recently published list of over 951 Studebaker owners who had driven their Studebakers upwards of 100,000 miles, in all types of service—bus, livery, ambulance, police and fire department, etc.

Completely Equipped

Studebaker Ambulances are completely equipped with spotlight, controlled from the inside, metal name plates on each front door; nickel-plated front bumper; motometer; extra disc wheel, with tire, tube and cover; rear traffic signal light; inspection light on 10-foot cord; rear vision mirror; automatic windshield cleaner and a Bomgardner folding cot. Two-beam nickel-plated acorn headlights are controlled by a switch on the steering wheel.

The new Studebaker Ambulance is sold as a complete unit by 3000 Studebaker dealers who also provide nation-wide service.

For further information address Dept. M, The Studebaker Corporation of America, South Bend, Ind.

STUDEBAKER AMBULANCES

For complete index of advertisements refer to the Classified Directory

material within the building and the panic resulting therefrom, yet the danger to the patients' lives is small compared with that of the patients who are housed in a building which is not fire-resisting.

THE MODERN HOSPITAL does not, of course, wish to be understood as advising against fire drills, yet enough has been said above to reflect its belief that such drills in an acute hospital must be performed in a manner to prevent unduly alarming patients who are very ill, and to safeguard them from injury by attempting to actually remove them from the building during such a test.

Why Do Terrazzo Floors Crack? What Can be Done to Prevent This Happening?

Terrazzo floors, consisting as they do of marble particles of various sizes held together by concrete, are, of course, subject to the effect of heat and cold, just as is any other form of material. If this type of floor is used in a building which has been constructed on filled ground, sometimes slight settling in the walls may produce cracking. Again, sometimes if this floor is laid on an improper base, is of improper thickness or is constructed of materials that are not of first grade, cracking or crumbling may result from any one of these causes. The usual cause of cracking, however, in a well laid floor, is that the size of the blocks, into which the floors are divided, is too great. If this is not the cause, the separation strips, which are usually of brass, have not been properly inserted or have been left out altogether.

Terrazzo blocks may vary from two to five feet on a side. If properly laid, no cracking should result.

If a terrazzo floor is laid in an old building in which the joists have deteriorated from age, but a slight sinking of supports may cause cracking to occur. Contraction and expansion caused by cold and heat, even though it amounts to but a small fraction of an inch, is perhaps the most common cause of these defects in hospital flooring.

What is the Best Method of Preventing Spinal Puncture Needles from Becoming Rusted?

Ofttimes in performing a spinal puncture the patient moves, and the spinal puncture needle is broken, either by being pinched between the vertebrae or by being suddenly bent in any direction. This rarely happens when new needles are being used, although if the needle is of steel, sometimes its brittleness causes this to take place.

High grade spinal puncture needles may be of iridoplatinum, although this type of needle while being pliable and therefore less easily broken, usually does not possess a point that remains sharp for as long a period of time as does that of a steel needle. The chief cause, however, of this unfortunate accident is that these needles, not being properly cleansed and dried after use, become rusted on the inside of the needle, usually next to the shoulder, and therefore are easily broken.

Great care must be taken by the nurse in cleansing needles after they have been used. To force water through the needle, to dislodge blood clots or other foreign material, is the first step. It is a wise procedure then to pass alcohol and finally ether through them, the last named being used to dry the inside or bore of the needle. A small suction apparatus, which can be placed on any water spigot, is sometimes used for this purpose, the point of the needle simply being immersed in water, then in alcohol and then in ether. This type of suction apparatus is often the one used for cleansing blood counting pipettes.

The solution of this question lies first in the purchase of high grade needles and in the adoption of a proper cleansing technique, with strict adherence thereto.

Platinum spinal puncture needles are usually so expensive (from five to ten dollars) that hospitals generally do not feel that their purchase is justifiable.

The Bookkeeper in a Certain Hospital is Intrusted with the Purchasing and with the Auditing of All Bills. The Superintendent Wishes an Expression of Opinion From The Modern Hospital on This Procedure.

No hospital can function efficiently unless it has a definite, well worked out plan of organization. It would be a fine thing if every hospital could have a framed blueprint placed on the wall of its administrative office showing this scheme.

In the institution referred to above, it does not appear reasonable to suppose that a matter so vital to the hospital's progress as the expenditure of the money intrusted to it by the public should be supervised by other than the superintendent herself. On the other hand, sometimes a hospital executive finds a person in the organization whose natural equipment and training make him peculiarly adapted to the business of buying goods. To this person may be allotted these duties, but the superintendent is the person who makes this assignment, and it is by her permission or wish that it is done.

It would appear that in the institution under consideration (unless the superintendent has designated the bookkeeper to supervise the hospital's buying), the situation is an impossible one, and the matter should be frankly discussed with the board of trustees from the standpoint of faulty organization. If the situation is not remedied by frank discussion with the members of this institution's board, then it appears that no other course is left open to the superintendent in question but to seek another field for carrying on her work of administration.

The superintendent of today must be a person of great tact and understanding, but when a situation arises in the hospital's work that is plainly detrimental to the patient's welfare, then tact must be replaced by firmness, in so far as the executive's endeavor to solve the problem is concerned.

Is it Unwise to Use the Institutional Ambulance in the Performance of Errands, Such as Making Trips to the Bank or the Transporting of Small Packages from the Express Office?

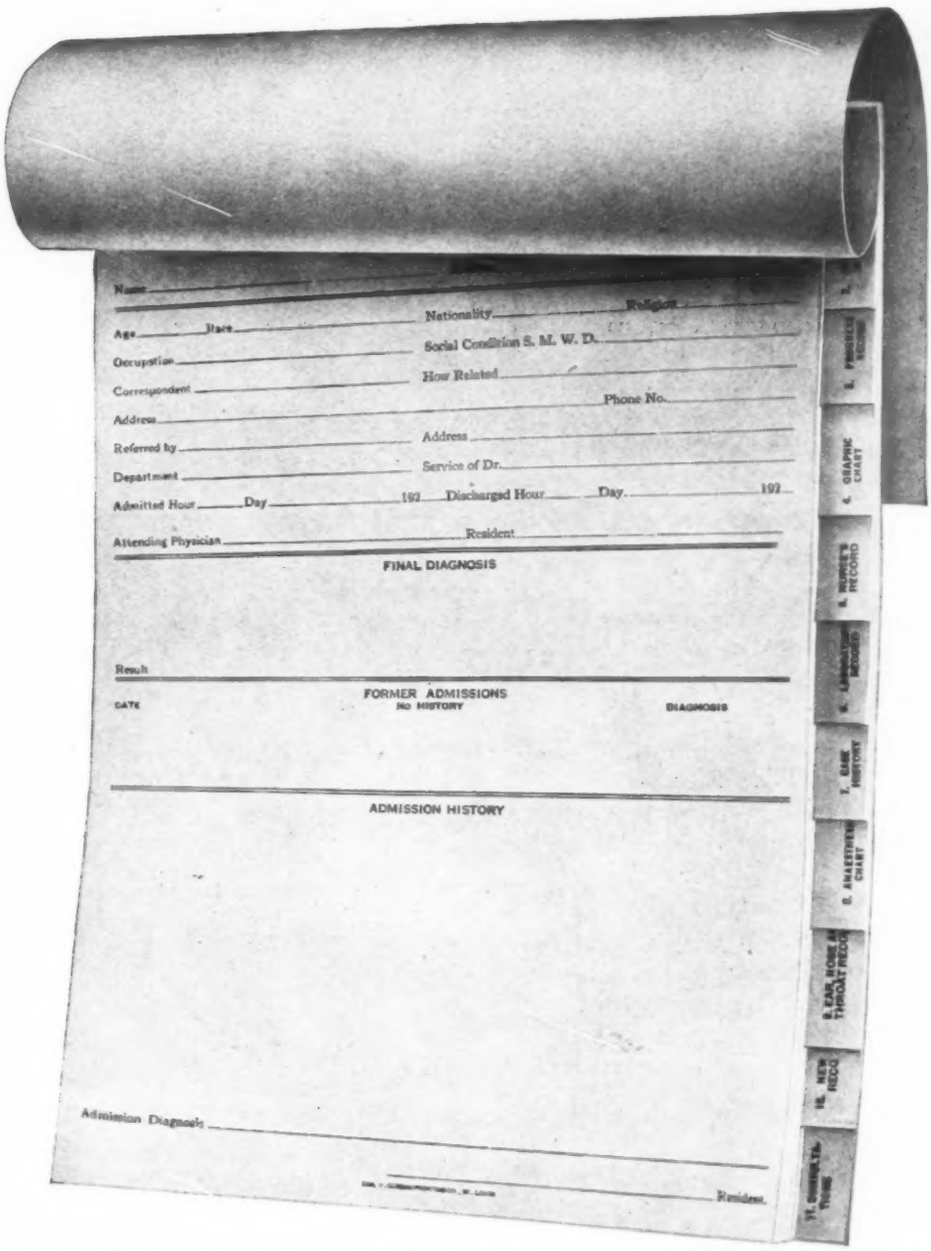
The answer to this question will depend somewhat upon the size of the hospital, and the motor equipment which it possesses. Most hospitals own utility conveyances for the performance of such work.

The construction and equipment of the hospital ambulance is such that it does not easily lend itself to the transportation of express and freight packages of size, or of those materials and supplies that will mar and soil the interior of the ambulance. The appearance of the ambulance on the street should signify that it is on an errand that has as its object the transportation of patients.

It seems much better for the hospital to possess a small passenger car or truck for the carrying out of these errands, than to utilize its ambulance for this purpose. It may be added that the appearance of the ambulance and the dignity of the driver and the physician who accompany it, has much to do with the public's opinion.

CURRAN'S TAB-IN-DEX SYSTEM

of CLINICAL RECORD FORMS



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DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU G. GRAVES, 7 East 54th Street, New York
and MARY A. FOLEY, Director of Dietetics, Kahler Hospital, Rochester, Minn.

HANDLING DIETARY PROBLEMS BY THE CENTRAL FOOD SERVICE

By Una M. Crawford, Dietitian, Hermann Hospital,
Houston, Texas

ALL goals must first be reached in the mind and often times we toil so long and hard to bring them to reality that when our dreams do come true it is hard for us to realize that the accomplishment is ours.

So it was with my coming to Hermann Hospital, Houston, Texas. I had dreamed for long of having such an efficient and well equipped department and now I find it hard to realize that I am awake, especially when I look about and see the many labor-saving devices—devices that I had learned to do without and can now appreciate as luxuries.

With so much wonderful equipment, success for the dietitian is assured. Of course I believe that any young woman, if she has her soul in her work, can make a success of her department without so much equipment. But how much happier she can be, how much more work she can accomplish, how much more service she can give and how many more dollars she can save for the institution if she has the proper things to run her department with.

The central food service if it can be properly installed is the ideal method of handling the food problems in a hospital. The food service was one of the uppermost thoughts in the minds of the architects in the planning of this building. The dietary department extends the full length of the hospital on the ground floor, with a hallway between it and the front lobby. In this way unnecessary passage through the kitchen is eliminated. There are no back entrances or exits. Opening into the side entrance is a checking room for receiving deliveries. There is a freight elevator in this checking room which carries all supplies

A section of the main kitchen of the Hermann Hospital

Dressing Sterilizers
Bed Pan Sterilizers
Water Sterilizers
Instrument Sterilizers
Utensil Sterilizers
Autoclaves
Sterilizers in combination

Bramhall Deane Sterilizers and Autoclaves installed in Bacteriological Laboratory of Metropolitan Life Insurance Co.

5 Points of SERVICE

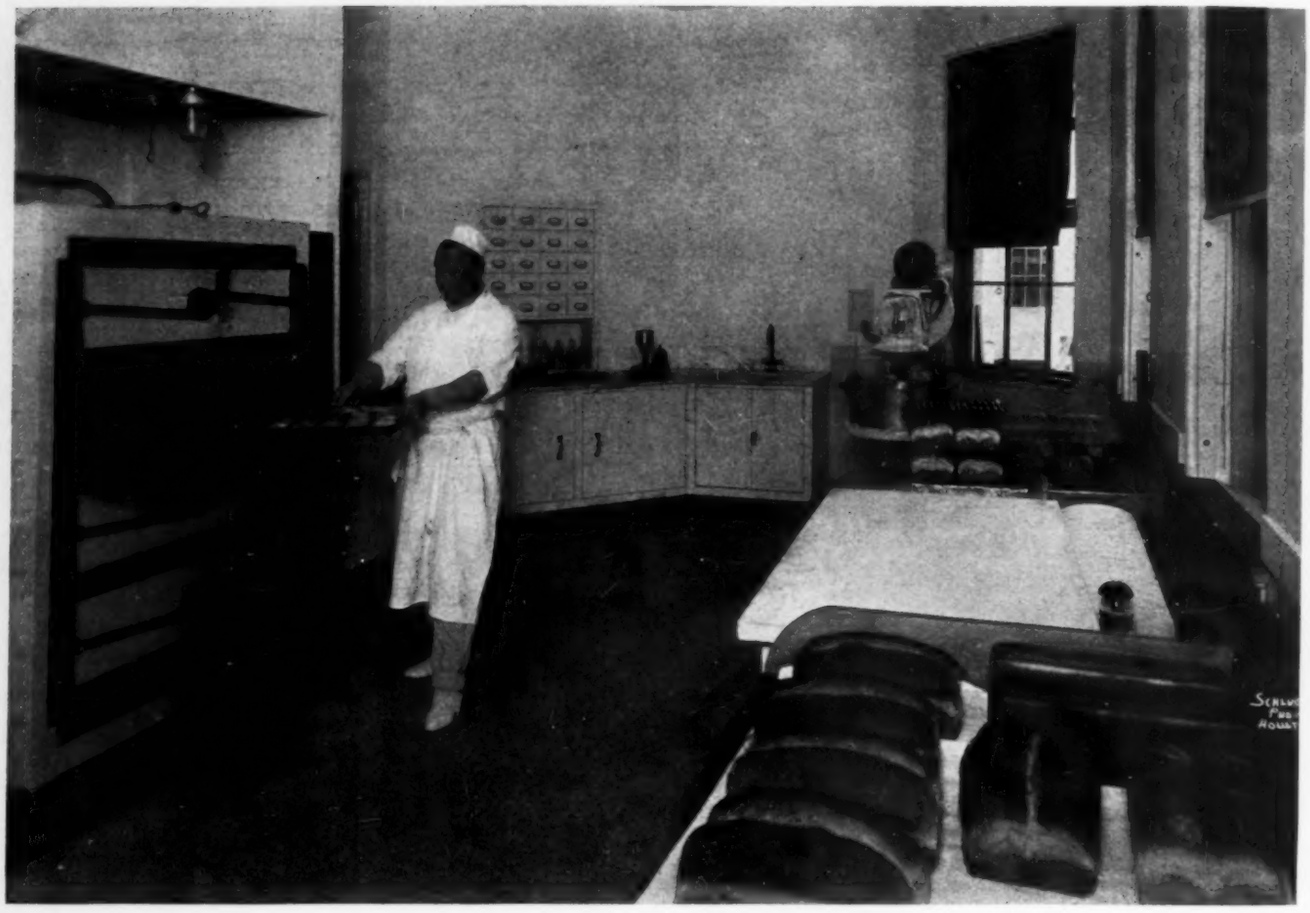
1. Kitchen Equipment
2. Cafeteria Equipment
3. French Ranges
4. Cooking Utensils
5. Sterilizing Apparatus

A Sterilizer Installation of Unusual Interest

Seventeen stories above the street in the Bacteriological Laboratory of the Metropolitan Life Insurance Company, facing "The Light That Never Fails" this installation of Bramhall Deane Sterilizers and autoclaves contributes its bit toward the life extension work of this great company. Because of their dependability, ease of control, and above all sureness and safety, these sterilizers and autoclaves have and will continue to give complete satisfaction.

BRAMHALL DEANE CO.

261 West 36th St. **New York City**



A corner of the bakery where all baking is done and desserts are prepared

to the basement to their respective storerooms. Into this room also opens a garbage refrigerator where all the garbage is put for disposal. These cans are replaced every evening by fresh ones for the next day's use.

All supplies are kept in a central storeroom and each day's needs are requisitioned through the superintendent's office. All monthly food supplies are requisitioned by the dietitian with the approval of the superintendent.

Food for general distribution is cooked in the main kitchen. The huge electric range can be appreciated by anyone who has worked in a Southern kitchen. We have the electric needs worked out to a fine point and through economy the consumption of electricity has been cut down.

All our cooking utensils are aluminum, and after fourteen months' use they are still bright and shining, thanks to the electric range.

All vegetables and salads are prepared and cooked in a separate kitchen. In this room, known as the vegetable kitchen, we have the potato peeler, the vegetable steamer, stock pot, cereal cookers and ice cream freezer. This is a bright, cheery room with four windows.

There are two dishwashers—one in each wing—which take care of all the dishes, washing 800 dishes in six minutes.

We have a well equipped bakery, where all the baking is done and all desserts are prepared. This room is also well lighted and cheerful. Naturally with such a room, it is not hard to secure a competent baker.

We have our own refrigeration plant, and down here in the sunny South, the refrigerator has many uses besides storage.

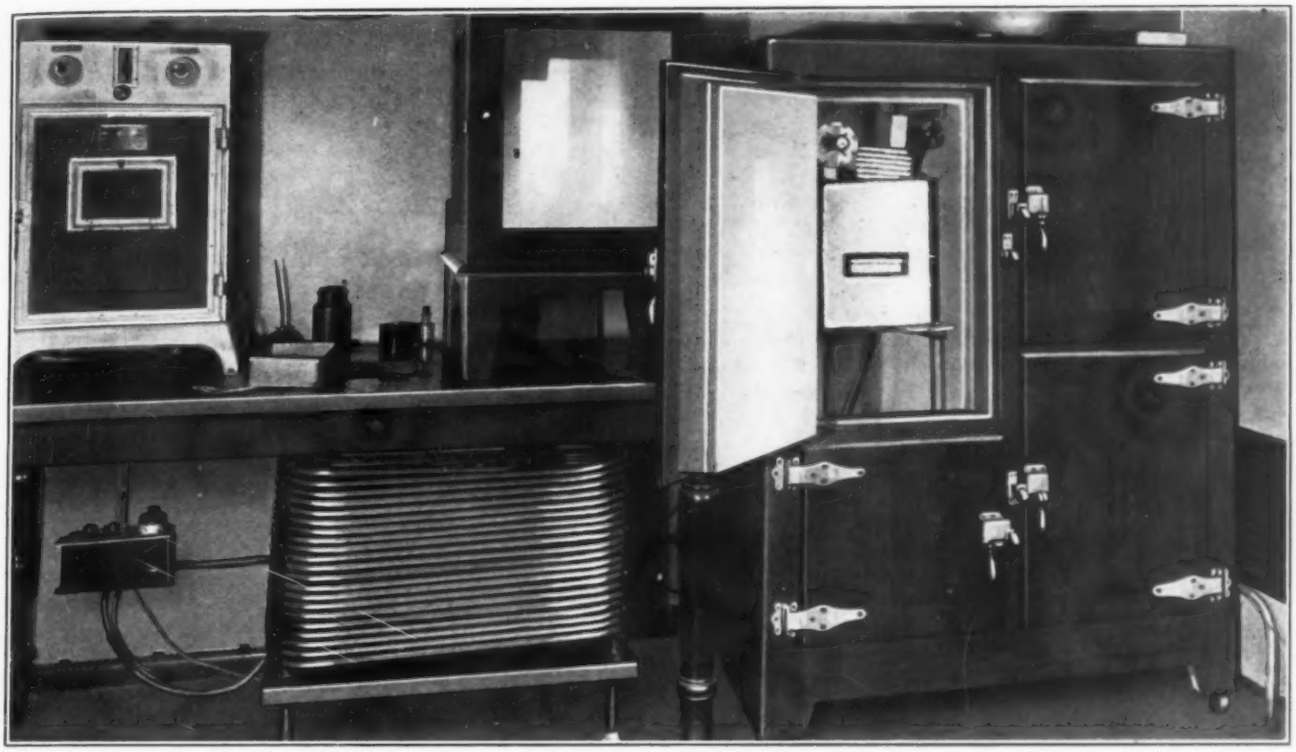
There are two serving stations—one in the east and one in the west wing. In these stations are three electric dumb-waiters, each large enough for four trays. We try to serve two floors at a time and this can be easily managed, for while one floor is taking its trays off, another dumb-waiter can be loaded and sent to the other floor. It is understood all over the hospital that at serving time nothing is so important as getting the food to the patient while it is hot. All floors are served in from twenty to thirty-five minutes. I find that personal visits to the patients keep up the proper spirit among them and inspire me to do my best.

We have found the colored card system effective for marking our trays. We use that system entirely and find it saves us many mistakes.

All diet orders are written, and the supervisors are glad to cooperate with us in this matter. All special diets are prepared in a separate kitchen and are sent separately from the other trays. Our medical staff has given us some interesting work to do in the past year.

Our nurses appreciate their roomy, well ventilated dining room where we have the cafeteria service. As each nurse has her own place, we set the tables. Another thing our girls appreciate is the linen tablecloth. We try hard to give the nurses wholesome food for we find it poor economy to cut expenses on our nurses' diet. In return for our efforts, we have happy, healthy girls which asset more than repays the institution.

Marion Vye, recently dietitian at Yonkers Homeopathic Hospital, Yonkers, N. Y., has been appointed dietitian at Highland Hospital, Rochester, N. Y., to succeed Margaret Drew who has given up work for the present on account of ill health.



Kelvinator-Nizer refrigerating equipment in chemical laboratory of large hospital.

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REORGANIZING THE FOOD SERVICE IN A STATE HOSPITAL

By Katharine A. Pritchett, Consultant on Administrative Nutrition, State Department of Welfare,
Harrisburg, Pa.

The Norristown State Hospital, Norristown, Pa., is introducing a program which when fully developed will place its food department among the best of those in mental hospitals. Indeed, it may even have a new message for the mental hospital.

The program comprises both food administration and dietotherapy. The administrative program began with improving the fundamentals—installing new gas ranges; redecorating dining rooms, using a restful, soothing color scheme; making job analyses; studying floor spacing and equipment preparatory to reducing labor and increasing efficiency; improving food service; and requisitioning raw materials on the basis of daily per capita consumption.

This winter those divisions of the farm that contribute to the kitchen will be given consideration looking toward increased production and better service to the kitchen next summer. The size and content of the truck garden will be determined by the variety, also the amounts of vegetables needed by the dietary department. Next summer it will be possible for the kitchen to requisition food products from the truck garden rather than to have delivered to the kitchen perishable foods in excess of consumption and frequently at an hour when help is off duty or is about to go off duty. The latter system in most institutions maintaining farms leads to disorganization, to waste through deterioration, and to lack of variety in the menus.

The administrative phase of the program was the first to receive attention because upon its efficient functioning depends the scientific feeding of patients, the goal of the program. To this end the professional staff will seat, as far as is practicable, the patients of each dining room according to their physical condition and nutritional needs, thus patients having no teeth and those with weak digestion may be grouped in one section and food will be prepared in a way that this particular group can use to the best advantage—the toothless patient will not be served food he cannot eat, such as corn on the cob. Such procedure is not only expensive financially but, more to be regretted, deprives the patient of the nourishment he is accredited with getting.

These are but some of the features of the program. Several important changes have been effected resulting in increased satisfaction to the patients and marked financial savings. Others are awaiting the appointment of a food administrator, qualified by training and experience to head both the administrative and dietary divisions. With a trained person in charge, it is planned to study food consumption, nutritional balance and operative costs as a basis for determining the food budget.

SOME PROBLEMS THAT CONFRONT THE SUPERVISING DIETITIAN

The organization and control of the dietary department is individual to every hospital, but upon one thing there is generally agreement, and that is that uniformly good products with as much esthetic value as can be urged and the most skimpy garbage disposal possible should result from using the cheapest labor that an employment bureau deals with. However, this being so generally true, it is probably trite to bring it to your attention.

There is general discussion as to where the boundary line lies between the dietitian's supervision of the patient's food and that which the floor nurse should assume. As the dietitian cannot conveniently supervise half a dozen or more diet kitchens feeding their patients at the same time the statement often made that she should follow the food throughout its course to the patient's bedside seems hardly a workable plan, neither is it exactly just for her to be refused all chance to try out her ideas there any more than in her dining rooms.

If she has the privilege of making food service inspection and a voice in the matter equal to that of the superintendent of nurses it seems that cooperation should be sufficient to carry on harmoniously. However, classified rules or a book of precedents should be invaluable in making adjustments. The setting of a similar definite standard or table of allowances on all staples sent to the wards, such as butter, cream, milk, eggs, etc., worked out on a per capita allowance for each type of ward, will also stop many petty complaints.

In recent years the dietitian has become more closely related to the doctor in his field of scientific medicine. Especially is this true with regard to metabolic research and in calculating diets with insulin for diabetic patients. In the small hospitals the dietitian will not have time or facilities with which to help out on any research problem but she can, with a little systematizing, manage to do her share in the treatment of many diseases that require an abnormal diet.

Reorganized House Diet

In some of the most common conditions, such as obesity, constipation, malnutrition, she can solve the problem most simply by giving a reorganized house diet, taking away from or adding to it, as the case may require; in other conditions, such as gastric jaundice, she will need to individualize more carefully; but it is with the diets for diabetes and others ordered for special calculation and weighing that the most time and care is needed. Certainly the basis for all these diets should come from a mutual agreement between all parties concerned in carrying them out, deciding just what they shall consist of, how they shall be ordered, by whom they shall be ordered, how transferred and served to the patient, and if, as is usually true, there is a maximum which the dietary department can prepare daily with satisfaction, this too should be established by the same method.

The superintendent, the staff, the nursing supervisor, probably the housekeeping department and the dietitian will be affected by the policies adopted and should therefore be represented in all discussions. Points peculiar to the institution itself will decide most of the routine but, speaking for the dietitian, I hope that the executive body will not think her unnecessarily stubborn if she insists that her orders, whether verbal or written, come as directly as possible from the physician himself.—Abstract from "The Dietitian and Her Job," by Eva Thallman, dietitian, Massachusetts General Hospital, Boston.

Mrs. John Henry Martin, New York, has gone to Lakeside Hospital, Cleveland, as administrative dietitian.

The New York State Department of Health, Albany, has announced that it will furnish hospitals of New York State with circulars pertaining to health subjects so that they may be placed in a rack in the waiting rooms for the convenience of the patients who make use of these rooms.

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PREPARING THE NURSE FOR PROFESSIONAL LIFE

By Ethel J. Odegard, A. B., R. N., Director, Milwaukee Central School of Nursing,
Milwaukee, Wis.

IT IS of interest to the future historian of health education to note the time devoted to papers and discussions on the teaching of student nurses in this decade of the twentieth century. Every convention of nursing, health or hospital interests discusses the subject and every periodical in any way related to nursing carries in almost every issue some comment as to the curriculum of the student nurse.

Articles range from the latest development on "The Grading of Schools of Nursing," to "How the Small Hospital in the Small Community Can Give An Education to the Nurse." In every instance authors state with equal emphasis that students should be of a high type, with adaptabilities above normal, a high school education, since only this kind of nurse will assure to patients the best possible care. The person discussing the educational field in the limited area of the small school seems to have no fears that the education given there is equal to that given elsewhere.

We need to realize that the root of the difficulties in our problem of nursing education is a financial one and it will not be solved until all interested face this question squarely and direct their thought and efforts towards solving it.

It is interesting to observe that the Committee on the Grading of Nursing Schools has found that the greatest number of nursing schools, namely 54 per cent, still has a one-year high school requirement while only 15 per cent of the schools requires four years of high school.* In Wisconsin the number of students with four years of high school is steadily increasing.

Three Groups of Applicants

The applicants to the Milwaukee Central School of Nursing come largely from high schools and they may be divided into three groups, girls who have always had a desire to become nurses because of their altruistic instincts, those who choose nursing as a vocation because they do not care for business or teaching positions, and those who because of financial circumstances cannot immediately attend college or university upon the completion of their high school course. It is true that we still have girls with from two to three years of high school and their reasons for leaving school may vary; some do not care to study and have not the ability, some for financial reasons have to drop out of school, and finally those who even in this enlightened age think that the education already received is sufficient to equip them for life.

An estimation of the quality of student nurses may be shown by observing the average of the mental intelligence tests given at the Milwaukee Central School of Nursing over a period of five semesters. It is our opinion that the students here are representative of the type found throughout the country and as such the results of the tests may be of interest.

Test used: The Thurstone Intelligence Test No. IV, Series 1921—

Class entered	Highest Score	Lowest Score	Median Score
Sept. 1924	101	37	63.1
Feb. 1925	120	40	75.0
Sept. 1925	136	48	80.7
Feb. 1926	142	44	76.3
Sept. 1926	128	42	79.3

Highest score possible with this test is 168.
Average score for normal school graduates 74.8.
Average score for letters and arts freshmen 86.8.

Few Exceptional Students Enroll

It is to be observed that in no instance did the median score reach that of freshmen in college, namely 86.8. This will bear out a point that schools of nursing throughout the country rarely receive applications from girls who have been honor students in high schools. This is undoubtedly due to the fact, not so much that nursing may be unattractive although the conditions surrounding are unattractive, but that the best high school students are advised to take the classical arts and science courses rather than an educationally unrecognized course, such as nursing. A recent survey has also shown that most high school girls still consider teaching as the most desirable profession.

The results obtained in these mental tests indicate that the ability of the class which entered in September, 1925, which has a median score of 80.7, is above the other classes, and that the average for both classes together for the year 1925-1926 is almost ten points higher than the average for the year 1924-1925. The class with the highest average score was also decidedly higher in mental qualifications, and the personalities of this group were much more in accordance with the generally accepted ideals of a nurse. The class entering in September, 1926, seemed to rate close to the September class of 1925.

It is encouraging to note that the mental level of nurs-

*"Some Problems in Grading our Schools of Nursing," The Trained Nurse and Hospital Review, Vol. LXXVII, No. 5, p. 507.

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Polyclinic H.
Postgraduate H.
St. Ann's H.
St. Mark's H.
Sloane Hospital
Woman's Hosp.

BROOKLYN
L. I. College H.
Method. Episc. H.
Norwegian H.
St. Catherine's H.
St. John's H.
Williamsburg Mat.

BUFFALO
Children's H.
Deaconness H.
General H.
Ingleside Home
Millard Fillmore H.
St. Mary's Mat. H.
Salvation Army H.

CHICAGO
Augustana H.
Grant H.
Henrotin Mem. H.
Illinois Cent. H.
Illinois Univ. H.
Chi. Lying-In H.
Michael Reese H.
Mercy Hospital
Misericordia H.
Sarah Morris H.
Norwegian Amer. Hospital
Presbyterian H.
Ravenswood H.
St. Joseph's H.
St. Luke's H.
South Shore H.
Wesley Mem. H.
West Sub. H.
Women's & Ch. H.

DETROIT
Henry Ford H.
Grace Hospital
Harper Hospital
Herman Kiefer H.
Osteopathic H.
Providence H.
St. Joseph's Mercy Hospital
Woman's Hospital

WASHINGTON
Children's H.
Columbia H.
Flor. Crit. Home
Garfield Mem. H.
Georgetown U. H.
Nat. Homeo. Hos.
St. Ann's Infant A.
Sibley Mem. H.
Geo. Wash. U. H.

PHILADELPHIA
Babies' Hospital
Bryn Mawr Hosp.
Chesnut Hill H.
Childrens' Hosp.
Hahnemann Hosp.
Howard Hospital
Jefferson Coll.
Kensington Hosp.
Preston Retreat
St. Agnes Hosp.
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Woman's Hosp.
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MINNEAPOLIS
Abbott Hospital
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BOSTON
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INDIANAPOLIS
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St. Luke's H.
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Children's H.
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NEW ORLEANS
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Hotel Dieu
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Touro Infirmary

HOUSTON
Baptist Hospital
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LOS ANGELES
California Luth. H.
Kaspare Cohn H.
General Hospital
Good Samaritan H.
Methodist H.
Montesano H.
Osteopath Hosp.
Queen of Angels H.
St. Vincent's H.
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ing students everywhere is rising with the advance in the entrance requirements. One of the members of our state board of nurse examiners said recently that her impression of the nurses taking state examinations some years ago, was that their mental age was about fourteen years, but that now there seems to be a considerable improvement in their mental aptitudes.

When we consider the type of young women whom we are to send out into the professional field every year we must, at the same time, be willing to listen to the criticism of the laity regarding graduate nurses. It is of no use to disregard this criticism, since a great deal of it is true, and it is our duty to get at the root of the matter. Is it possible for us to obtain the nurses whom we wish to represent the profession if the average mental capacity is nearer 70 per cent and under rather than over 85 per cent. Mrs. John H. Lowman, Cleveland, in an article, "The Interrelation of the Laity and Nurses" says, "What lay persons have failed in great measure to recognize is that, in a practical sense, the better the product that enters the school, the better the immediate care of the sick and the ultimate value to society at large."* We know that men and women of the greatest vision, who feel the greatest responsibility for giving service to their fellow citizens are persons who must have more than average mentality. It is of no avail when graduation evening comes to extol the principles of loyalty and duties to physician, hospital and public, if the newly graduated nurse has only the mind of a girl in her early adolescent life, or if she is of slow mentality. Duties and responsibilities such as these can only be executed by mentally alert mature young women. These duties are also not in the field of the ethical and moral life alone but have to do as well with the intellectual understanding of all phases of the nurses' professional work. Our aim, then, must be to have a higher percentage of better students, to develop the mental capacities that they have, to know and help them enrich their spiritual and ethical concepts of life so that they may give to the public and their patients full measure of duty, loyalty and service.

Fundamentals of Preparation

The preparation of the student nurse embraces scientific education and clinical training. The principles of science are fundamental to the clinical aspects of education, that aside from that the clinical training is concerned with teaching the student the art and skill necessary to her work. Scientific education aims to introduce to the student the facts and knowledge contained in the nursing curriculum but, more than anything else, it aims to teach her to use her mind so as to be able to think. In this way alone will the nurse be able to carry over her knowledge so that it will function for the welfare of her patient.

This scientific part of the preparation of the nurse continues only superficially throughout her course of three years, with emphasis in the first year of the course. Schools that do not have a university affiliation often find that the basic sciences must be given entirely in the first semester, whereas university schools are able to extend this work over two semesters. Clinical education must be deferred until a later period, as it cannot be emphasized at this time.

The second and third years of the nursing curriculum are devoted to learning the different services in the various branches of the nurses' professional work. In addition, instruction is given in medical, surgical, social and public health subjects. For some years teachers of nursing, realizing that more scientific instruction was needed, bent all their efforts to give those courses an established place in the curriculum. Now the trend is toward the direction of making the curriculum unified, so that theory and practice must be correlated.

Such plan of instruction entails as much effort in the working out of details as was required to increase the scientific instruction. A student equipped with preliminary instruction in science and bedside nursing together with the first instruction given by the supervisor or head nurse, does not necessarily profit by ward work. She may gain in skill and precision, and that as one objective is important, but she does not necessarily create any new stimulus-response bonds. The reason is not that there is nothing to learn from the patients but that the student nurse is too immature to make the correlation between the pathological conditions she sees and the theoretical principles she has learned previously. The nurse needs the constant guide and instruction of a clinical teacher. This teacher should not be the busy supervisor who has the many duties of an administrative officer, nor should she be the one instructor in the principles and practice of nursing who when not engaged in holding a class or demonstration hurries up to the hospital wards to see what she can do there. This extension of bedside teaching means that there must be someone definitely selected to do this work and that there must be time allotted to it for the student nurse.

Professional Attitudes Needed

During this entire period professional attitudes should be established with regard to the patients within the hospital and to the community. The student's mind should be molded to think of prevention of disease as well as of the immediate care of the patient. The nurses' influence in education is lost if when she finishes her course she is not imbued with the desire to aid her patients in the science of keeping well. In fact schools of nursing that have not the teaching and formation of right attitudes of prevention of disease and health education as one of the objectives in their curriculum would seem to fall into the category of schools that are unprogressive.

It is an established fact that the time the student devotes to technique and nursing duties is much out of proportion to the time that she spends on her classwork and study hours. A forward step was taken not so many years ago when almost every hospital recognized that an eight-hour day was all that should be expected of a student nurse. With many struggles that day has been attained. However, in the light of our present knowledge, it is becoming generally recognized that deeper and more thorough instruction needs to be given in the second and third years.

Our teaching consists mostly in pouring in information without much attention as to what we can get back again from the student or what her reaction is to the facts and principles learned. To find out the reaction of the student to the subject matter, which is the thing the teacher needs to know and which is the thing to be developed and fostered in the student, if she is to grow mentally, requires more time than most schools of nursing have to give at present. The committee of the National League of Nursing Education recognizes this and in its new curriculum has increased the proportion of the discussion hours to the number of lecture hours. We still have to remember that the student needs carefully assigned hours of study to take care of such a program. More thorough instruction means more time to study which in turn can mean nothing else than a reduction of time spent by the student on the wards.

The scientific part of the nurse's education purposes to

*THE MODERN HOSPITAL, Vol. XXVI, No. 5, p. 460.

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teach her to think. Her reasoning power should be stimulated and increased while working over various chemical reactions, and by tracing the sociological influences behind important historical movements. In her advanced work she should go on to judge the thought of others in her own and allied health fields. The additional discussion hours are not only to take the time to discuss what the teacher has given to the class in the previous hour, but also to present discussions on outside reading and investigations. Here again schools of nursing are deficient in their present curriculum largely because of the physical fatigue that stifles the initiative and desire to carry on sustained intellectual effort outside the classroom. That a professional woman can be prepared without the above named essentials is incompatible with the true meaning of the profession.

Suggestions for Practical Plan

Any contemplated project will never be accomplished by theorizing alone, but must be accomplished by suggestions for the practical working out of the plan. If the student is to have more time for study and classwork in her second and third years how may more time be allotted to her? To discuss the time spent in non-educational service or to dwell on the excessive amount of time put into night duty or other services is unnecessary. These points have been stressed in articles and reports including the Cleveland Health Survey and the Rockefeller Foundation Report. More time for the student nurse to provide for her an adequate education means an increase in cost in hospital and nursing school administration. Only with a permanent graduate nursing staff can the necessary care be given to the patient and the student be released for study and classwork.

It is interesting to compare the members of staff of the visiting nurse association which may be thought of as an extra-mural hospital. This organization carries on its work of taking care of the sick in the homes of the city almost entirely with a paid graduate nursing service. The students on the visiting nurse association staff form the smallest percentage of the entire service which includes graduate nursing service, supervisory, educational, and executive service. The visting nurse association, to be sure, does not have to spend its money on physical additions and equipment, upkeep and maintenance as does a hospital.

It would seem that every hospital school of nursing would not find it an impossible task to raise money to provide for this increase in the graduate nursing staff. This money should be gotten either through the community fund, legislative enactment, or through endowments for this purpose. The idea must be sold, of course, but is our problem not an idea worth selling?

The preparation of a person for a profession requires more than a technical education. The nurse, however, has not had more than this. Her education has been directed entirely towards a preparation for a specific occupation and consequently outside the confines of her work she has been found lacking in those cultural qualities that make strong personalities. It is a sad observation that after having spent three of the formative and plastic years of life, one has nothing to fall back upon, aside from work, to enrich one's life. The nurse as a woman comes to realize that she has a place to fill as a citizen with civic responsibilities, a social life as wife and mother.

In order to see the place of one's work in the social fabric, to have a conception of the relationship of one's work to all the activities of life, one must be able to see it in its proper relationship to all other work. Where, in this instance, is the nurse to get this perspective of life, where is she to find this knowledge, which will teach her to live? Without a horizon such as this, living with a reasonable amount of satisfaction will scarcely be realized by the nurse.

Where the fundamental principles of education have been inculcated into the mind of students it would be well to estimate, not only the inherent capacities of the individual graduates, but also to estimate the institution from which they received their education. Our colleges and universities have a history of fostering high ideals of living and citizenship and these traditions have their influence upon the young minds who seek education there.

Again the influence of teachers on the awakening mind is not to be disregarded. Learning and a right philosophy of life do not come alone from books and paintings, study and observation, but from contacts and inspiration received from men and women who have contributed richly to the cultural and spiritual welfare of others. Students may not remember at the time the many things done for them, the attitude taken for their welfare and development but they appreciate these things as they grow to maturity. A system of education such as ours is wrong in which we consider foremost the advantage to us of the skill and service and time of the individual in the learning stage.

Cultural Side Lacking

How much of a philosophy of life is given to our student nurses? Is not the emphasis on fact and material needs of the day? We have little time to take our students aside and consider the things that they should have and follow in order to live the full and complete life. Our schools of nursing, representing a struggling system of education, should find out and conform to the fundamentals of education. We talk a great deal of the indebtedness of our graduates to us, but we should be concerned with our indebtedness to them as individuals and as citizens of our state. Our duty to a right system of education is our indebtedness to provide the best we know to the person seeking an education.

As other vocations have sought to raise themselves to a professional status by having their courses developed in universities so the vocation of nursing is doing the same. The university or college in its letters and arts courses is able to contribute to the cultural side of life such as the purely technical school is not, and by reason of that can graduate people who have a broader outlook on life. This way should be open to the nurse, so that she may receive the educational preparation that shall help her to be a truly professional woman, that will make it possible for her to serve the people in the most intelligent as well as humanitarian manner and also to give her some cultural and spiritual rewards for herself.

NURSING PROGRESS AND THE ASSOCIATION

The American Nurses' Association now has a membership of 54,000 from all of the United States. Among its accomplishments in the past twenty-five years are legislative work in forty-eight states which now have registration laws for nurses, and the establishment of the relief fund, now totalling $123,000 which is used for the relief of nurses who are ill or without funds. The association is one of the seven organizations sponsoring the committee on grading of nursing schools in a five-year program costing $150,000 for the grading of 1,800 schools of nursing in the United States.

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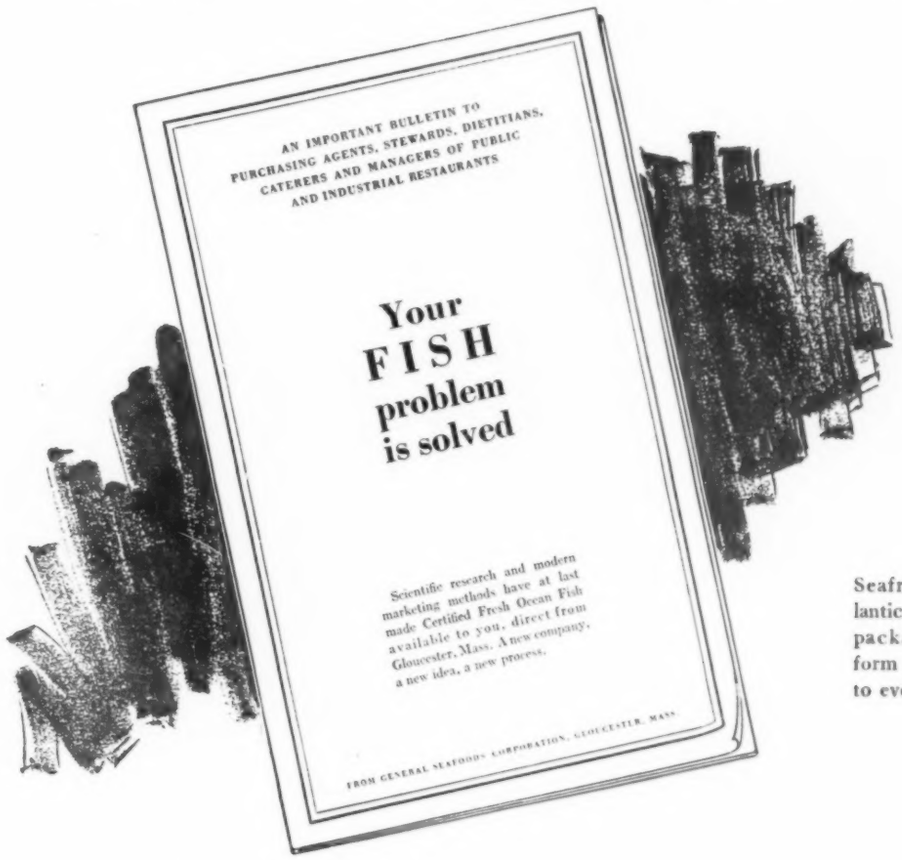
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HOW MANY HOURS OF NURSING SERVICE DO PATIENTS REQUIRE?*

WHAT should be the ratio of patients to nurses? This is a question that is constantly asked. No answer applicable to every hospital can be given, and for any designated hospital the ratio should not be in the form of a general estimate. It should be a statement based on definite data and accurately determined. Both the length of time required to give the necessary nursing care to the patients and the number of hours a day that the nurses work, must be considered.

The following table, one a series compiled for varying age groups, by the students of the Babies' and Children's Hospital, Cleveland, gives one method of determining the required number of hours of nursing service needed on the various wards.

Schedule Showing Number of Hours of Nursing Service Required for an Average Patient Under One Year of Age on the Pediatric Service

Procedure	Number of times repeated in 24 hrs.	Average time required for procedure min.	Total time required daily min.
Basic			
1. Bath	1	20	20
2. Bottle feeding	5	25	125
3. Changing of diaper	15	10	150
4. Farina, vegetable, etc.	1	15	15
5. Holding	2	10	20
6. Making of bed	1	10	10
7. Taking of T. P. R.	6	6	36
8. Water, orange juice, etc.	5	15	75
Total time for basic care for average patient in 24 hours			451 min.
Special			
1. Treatments	2	10	20
2. Medication	3	10	30
3. Venipuncture, x-ray, light treatments, Ultraviolet, etc.			30
Total time for special care for average patient in 24 hours			80 min.
Total time for care for average patient in 24 hours			8+hrs.

Though this table would vary with every hospital, it serves to illustrate the method of computation. Having found the number of hours of nursing service needed for the ward, the next step is to find the required nurses to give this service. To ascertain the number of hours of available nursing service, it is impossible to multiply the number of nurses assigned to the ward by any given number of working hours per day, since the time spent in class, clinic or when working in the district, must be deducted in each case. In order to make the contrast between existing conditions in a given institution and the necessary service which the patients require, more concrete, it is well worth the effort to obtain an accurate statement of hours of available nursing service.

The actual number of hours of available nursing service having been found and divided by eight, (assuming that an eight-hour day is the standard), the statement has been reduced to our common conception of a nurse's working day. The ratio of patient to eight hours of service is more logical than that of patients to nurses. But why use this ratio at all? It is far more simple and elucidating to those interested in the problem of giving adequate care to the patients and suitable training to the students, to know the number of hours of nursing service required by the patients and the number of hours of nursing service available for the care and, if a discrepancy exists, what is the solution of the problem.

A statement showing the number of hours of nursing service required by a patient and the number of hours of available nursing service, is of value not only to the nursing and administrative departments of the hospital but to the lay person who knows little about the subject and who would be readily misled by a statement of the ratio of patients to nurses. The actual discrepancy between the ideal and the existing conditions can be seen at a glance, as well as the information which is needed to make a rational solution of the problem.

In this schedule, the work being divided into definite procedures and the length of time required for each given, it is possible to determine the number of hours of nursing service that demands the skill of the senior or graduate nurse, and the number of hours of service, if any, that can be performed by an untrained worker, such as an attendant, nurse's helper or nursery maid.

*Prepared by students of Western Reserve University School of Nursing, Cleveland, including affiliated students, assisted by Gladys Sellew, director of nursing service, Babies nad Children's Hospital, Cleveland.

EDUCATIONAL STIMULUS AS A MEASURE OF SERVICE

The activities of the hospital in teaching interns and nurses so that we may have better equipped physicians and nurses and in teaching patients methods of adapting themselves to their environment and ways of preventing frequent exacerbations in chronic illness—activities that are all educational—comprise a large part of the value of the hospital to the community.

These are values that do not lend themselves to classification in the terms now ordinarily employed to indicate the efficiency of hospital organization. Just so long as the efficiency of the hospital is to be measured by the size, large or small, of its expense account as the sole mark of progress, just that long will hospitals be slow to adopt these extra-mural activities that do not fit the existing classification.

The hospitals and the community must be brought to realize that the value of the hospital cannot be measured by the number of operations, the number of patients treated or the number of days' care. Rather the modern hospital must be measured in terms of educational stimulus, broadened conception of economic and sociologic problems and in terms of the days of hospitalization it has prevented and how many patients it has kept in an economic, productive status. This is made difficult by the fact that the cost of these extra-mural hospital activities comes from the hospital exchequer, while the financial returns are lost in the maze of the economic fabric of the community.—A. B. Denison, M.D., in the *Long Island Medical Journal.*

WHEN PAVILIONS WERE SMALL CITIES

St. Basil built a hospital at Caesarea in Cappadocia in the year 369 A.D. A brother of St. Gregory of Nazianus, who was a physician, worked in it. It seems, from the writings of St. Gregory, about whose interesting account there seems to be no dispute, the hospital was a small city, with streets running through to separate the buildings for various classes of disease. There were also buildings for workshops and industrial schools.

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and by ALEC N. THOMSON, M.D., Medical Secretary, Committee on Dispensary Development, United Hospital Fund of New York 15 W. 43rd Street, New York

THE RECENT GROWTH OF CLINICS IN THE UNITED STATES

By Margaret Janicula, Committee on Dispensary Development of the United Hospital Fund of New York,
New York

THE great strides that have been made in the various public health movements in this country are manifest in many ways; perhaps none is more noteworthy than the growth of clinics for the treatment and prevention of disease. This development has been out of all proportion to the increase in the population of the United States.

In 1800 when the population was a little over five million, there were in the seventeen states comprising the republic at that time, three dispensaries whose main function was the dispensing of medicines. One hundred and twenty-five years later, the population of the United States having increased sixty-five times, there are two thousand times the number of clinics, in which the dispensing of medicine plays a minor part. This growth has not been gradual. As the following table shows, it is only in the last fifteen years that the development has been so marked:

TABLE I

Year	Number of Clinics
1800	3
1904	156
1910	574
1916	2,300
1926	5,726*

While the large proportion of this increase in the last decade has been due to the establishment of clinics in connection with the infant mortality, child hygiene, tuberculosis, social hygiene and other public health activities, the tendency of hospitals to provide facilities for the treatment of the ambulatory sick was responsible for the growth in the beginning of this century. In many special hospitals, such as eye, ear, nose and throat, and orthopedic hospitals, out-patient departments were provided for when these hospitals were established, while the inclusion of out-patient departments in the general hospitals was not customary except in the large institutions of the cities.

In 1916, only 745, or about 18 per cent of the 4800 non-government hospitals, special as well as general, had out-patient departments. By 1925 this proportion had increased to 30 per cent, 1790 of the 5639 hospitals reported by the American Medical Association in its "Report of Hospital Service for the Year 1925" maintaining out-patient departments. This report also contains a list of 543 hospitals approved for internship; of these, 316 require a course in the out-patient department as part of the intern's training; in 81 this course is optional.

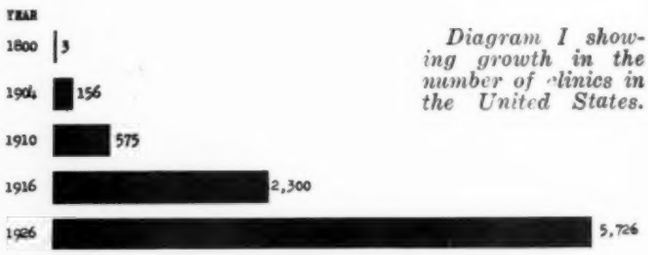

Diagram I showing growth in the number of clinics in the United States.

At the present time, of the 1790 out-patient departments, 488 are parts of special hospitals confining their work to certain branches of medicine. The 1302 out-patient departments of the general hospitals include about fifty clinics or out-patient departments set up by medical schools for teaching purposes, but do not include the out-patient departments that are parts of Federal or industrial hospitals. These are included in the following tabulation under "clinics serving special groups," no distinction being made between the clinics unattached to hospitals and those that are parts of the larger institutions.

TABLE II

Clinics in the United States

Out-Patient Departments	1,790
General	1,302
Hospitals (excl. Federal and Industrial)	1,252
Medical Schools	50
Special Hospitals	488
Nervous and Mental	197

*The various types of clinics and the number of each which make up this total are enumerated in Table II. The sources from which this material was gathered include the American Medical Association "List of Dispensaries and Out-Patient Departments, 1922"; the tabulations of the United States Census Bureau, 1923; material furnished by the national headquarters of the American Red Cross; and a special inquiry in 1926 by the Committee on Dispensary Development in cooperation with THE MODERN HOSPITAL.

Figures for the preceding years are taken from "Dispensaries", by Davis and Warner, pp. 36 and 37, published by the Macmillan Company, New York.

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Tuberculosis	107	
Children's	52	
Women's	49	
Eye, Ear, Nose and Throat	37	
Orthopedic	26	
Other	20	
Unattached Clinics		2,793
General	347	
Tuberculosis	585	
Venereal Diseases	350	
Baby and Child Hygiene	1,000	
Mental	79	
Red Cross Clinics and Health Centers	350	
Dental	57	
Other	25	
Clinics Serving Special Groups		923
Federal	423	
Industrial	500	
Group Clinics		220
		5,726

The number of unattached clinics, 2793, is probably less than the number of such clinics actually in existence. The figures for the tuberculosis, venereal disease and mental clinics present a fairly accurate picture, but it has not been possible to secure complete and authentic lists of several special groups and the totals have been estimated. The figure used for the baby and child hygiene clinics is probably wide of the actual number; that for the dental clinics also probably falls below the number of establishments. The figures for unattached clinics cover only those that are not parts of other organizations. Practically every large out-patient department includes in its organization clinics for tuberculosis, veneral disease and other branches of medicine, for which some special clinics are also established, so that the number of places where treatment for these conditions may be obtained is much larger.

The accompanying diagram comparing the clinic field in 1916 with that in 1926 presents an interesting picture:

There has been little if any increase in the old-fashioned "dispensary" unattached to a hospital, and where such clinics have not gone out of existence as a result of their old-fashioned methods, they have become the out-patient departments of hospitals or have been transformed into health centers emphasizing preventive rather than curative medicine, as do the majority of those clinics that are now established without affiliation with a hospital. In one case, however, the order of organization is reversed. Some years ago a group of physicians and laymen established in a city in the middle west a health center without any hospital affiliations. The center outgrew the old quarters and a new building now houses the various clinics. There is a definite need for hospital facilities for the patients of the health center and it is now planned to build a hospital whose organization will be under the control of the group that is responsible for the management of the health center.

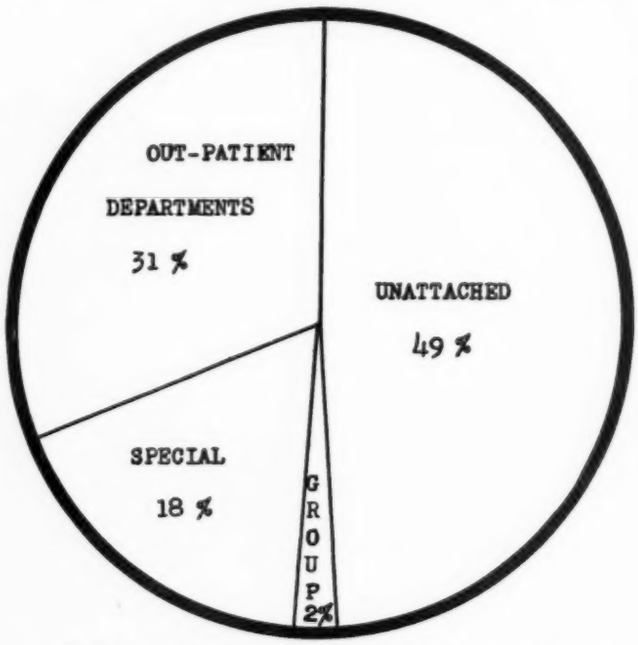

Diagram III showing the distribution of clinics in 1926

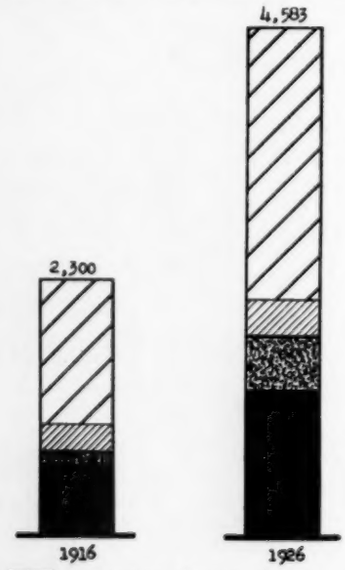

Diagram II showing the growth of clinics in the last decade. Clinics serving special groups (923) and group clinics (220) are not included in the 1926 bar, as there are no comparable figures for these in 1916.

	1916	1926
Unattached clinics, special	1300	2446
Unattached clinics, general	245	347
Out-patient departments of hospitals, special	100	488
Out-patient departments of hospitals, general	645	1302

The unattached tuberculosis clinics reached the crest of their development as independent institutions by 1916, their establishment since that time being largely in the out-patient departments of hospitals. The most noteworthy advancement in recent years has been in the baby and child hygiene stations. These have grown with such rapidity in small local units largely under health department auspices, that no accurate census has been made. There is available no list approximating completeness. The great development of mental and dental clinics is not apparent in this table, as the greater number have been established as parts of out-patient departments of hospitals and of the independent health centers. Another important advance in recent years has been in cardiac clinics, not only as regards the number established, but particularly in the development of the scope of this work. These have not been listed separately, since they are all parts of the out-patient departments of hospitals.

The great need for venereal disease clinics was brought out during the war and large numbers were established at that time. The work of many of these has since been transferred to out-patient departments, although there are at the present time 359 maintained independently of other institutions.

While the enormous recent growth in the number of clinics is largely a result of public health movements, as the above figures indicate, we may anticipate that the number of unattached clinics established for public health

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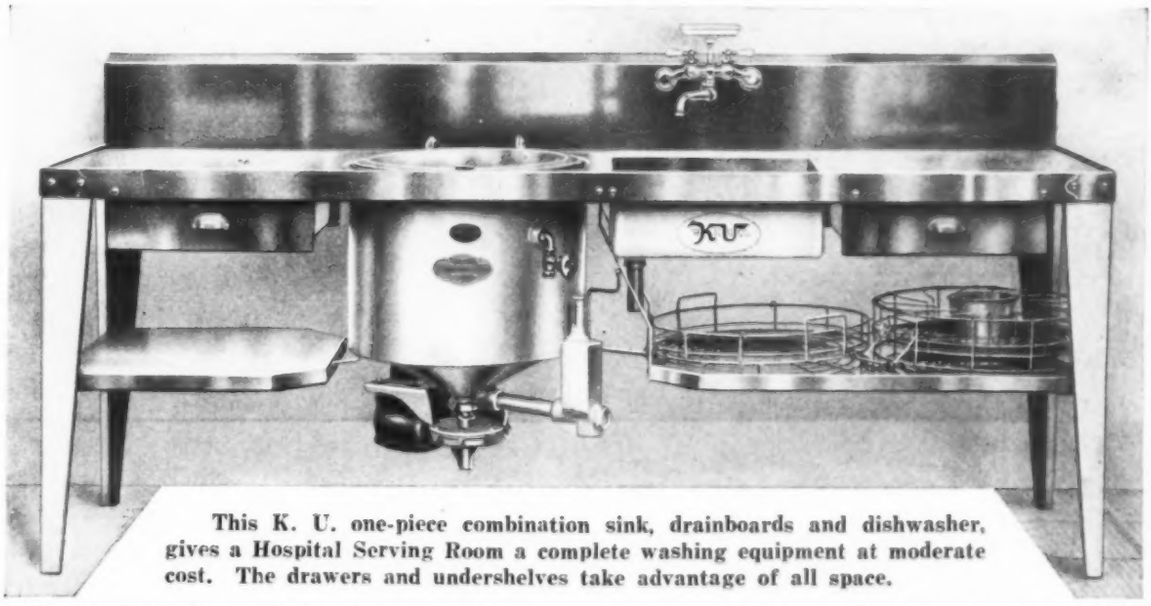

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purposes will not increase rapidly, nor indeed increase much in the future, except in those branches that are purely preventive or that require so much localization in small stations as to be incapable of affiliation with the out-patient departments of hospitals.

Clinics Dealing With Special Groups

Clinics dealing with special groups—such as those established by commercial organizations for the benefit of their employees, the clinics established by the Federal government for its beneficiaries, particularly those of the Veterans' Bureau, the clinics in colleges and other schools, in prisons and other institutions—are almost entirely the development of the last decade. Industry which first established clinics to take care only of emergency work, particularly in connection with compensation cases, has kept pace with the trend in modern medicine and now provides facilities for prevention as well as cure. There is no dependable list of industrial clinics, but in August, 1922, the American Medical Association stated, "the number of industrial dispensaries has been placed at something more than four hundred by some who are in touch with industrial medicine. This estimate is conservative." It is thought that placing the number of industrial clinics in existence at this time at 500 is below rather than above the truth.

The Census Bureau Report on Hospitals and Dispensaries, 1923, gives the number of Federal clinics as 423. About one-fourth of these are under the direction of the Veterans' Bureau for the examination and treatment of its beneficiaries and have been established since the Armistice; those of the Army and the Navy include clinics not only for their enlisted and commissioned personnel, but also for the civilians employed in the various industrial establishments operated by these services; the Public Health Service maintains clinics for the relief of members of the United States merchant marine, the first obligation imposed on this now comprehensive service when it was provided for by Congress in 1798; a small number of clinics are under the direction of the Indian Service for the benefit of those wards of the Federal Government.

Geographical Distribution of Clinics

The distribution of clinics follows quite closely the centers of population. This is particularly true of the out-patient departments and clinics treating all diseases. When the number of clinics in a state that has not many cities within its borders is greater than the average, it is almost always due to the preponderance of public health clinics. Pennsylvania, whose population is a million and a half less than New York, has about the same number of clinics. Two-thirds of those in New York State, however, are in the City of New York, and almost all of the remainder are found in the other cities. In Pennsylvania, only one-fourth are in Philadelphia, while the remaining 300 are scattered all through the state. The greater number of these clinics are for the treatment of tuberculosis and venereal disease and are maintained by the State Department of Health.

Massachusetts, whose population is less than one-half of Pennsylvania's, has more than half as many clinics. Here, too, the public health clinics are numerous, those for the treatment and care of mental and nervous diseases being in greater proportion than in other states. New Hampshire's proportion of clinics is larger than that for the other New England States; clinics for tuberculosis comprise 65 per cent of the total number in the state.

The southern states, where large cities are the exception, have fewer clinics, and of the total number, about half are devoted to public health work, particularly for the treatment of venereal disease.

Industrial clinics are, of course, more prevalent in the cities where there are many manufacturing establishments, but many of the railroads and mining companies west of the Mississippi maintain not only clinics for their employees, but hospitals with out-patient departments for the employees and their families.

The clinics of the Federal Government are distributed according to the needs of the beneficiaries of the various services responsible for them. The relief stations of the Public Health Service are found at all the important ports, not only on the coast but on the large rivers. The Veterans' Bureau has endeavored to establish clinics for the examination and care of its beneficiaries in all the large cities and at other points accessible from large areas.

There are, of course, facilities for the care of the personnel of the Army and Navy at all posts, as well as at the various armories and manufacturing establishments at which civilians are employed. The clinics of the Indian Service are usually in combination with the Indian schools but some are separate institutions.

"Group clinics," the last named type on the table, are voluntary associations of physicians using a certain plant, equipment and organization in common. These clinics have their chief development in the Middle West. Illinois, Wisconsin, Michigan and Minnesota account for eighty-nine of the total of 220. There is only one other state, Texas, that has a greater number; out of a total of 102 clinics of all kinds in this state, there are twenty-seven of this type. These establishments, of course, have little in common with the out-patient department or the public health clinics, but they are of interest as illustrating the trend towards organization in medical practice, which distinguishes the clinic from the individual doctor's office.

The growth of clinics in recent years has not been in numbers alone, but also—and in this they are like the hospitals—in the direction of serving a variety of social classes not merely "the poor." This phase of their growth, however, lies outside the scope of this paper.

THE PASSING OF "INSANITY"

A recent visitor to a mental hospital, in commenting on his tour of inspection, is quoted as saying: "The progress in the care and treatment of this great group of patients has been marvellous indeed, but what to me is most striking is that the entire personnel, in speaking of the patients or their condition, use the term 'mentally ill'—a term most pleasing indeed, for in my section they call them lunatics, crazy, insane."

His section does not stand aloof in this respect, nor does his profession. Sections, professions, and some physicians are using terms long since discarded by those interested in progressive mental medicine and the patient's welfare. An exception to this, however, is found in legal progress in the best usage. At present, when the majesty of the law asks, "Is the patient sane or insane?" on affirmation, the court decrees: "John Smith is a lunatic." Possibly the visitor's descendants in fifty years may say: "The judicial decree is certainly progressive. I read that John Smith has been declared mentally incapable due to temporary or permanent mental illness." Possible? Certainly it is possible. A few years ago the law designed "Pennsylvania State Hospitals for the Insane." The statute now reads "Pennsylvania State Hospitals," a term which carries with it modern methods, modern ideas.—*Atlantic Medical Journal.*

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Conducted by C. W. MUNGER, M.D., Director, Grasslands Hospital, Valhalla, N. Y.

SURGICAL SUPPLIES TO BE STUDIED AND STANDARDIZED*

By Frederic H. Slayton, M.D., Mellon Institute, University of Pittsburgh,
Pittsburgh, Pa.

A FELLOWSHIP has been established at Mellon Institute, University of Pittsburgh, that has for its purpose a broad study of surgical supplies, or perhaps a better term would be surgical sundries. It is proposed to ascertain the exact requirements of surgeons and other medical specialists, with the joint aim of meeting more certainly their needs and of standardizing the products now in use. The investigation is designed to be comprehensive and to cover the entire field. It is to be carried on in an unbiased and independent manner, in accordance with the Mellon Institute system, and all aspects of the work will be undertaken primarily for the benefit of the public

A real need seems to exist for such a study, for inquiry has shown that nothing of like character has ever been attempted. We believe that a careful investigation of this type, which will approach each specific problem from the scientific standpoint rather than from the commercial side, may prove of great value. Commercial interests have frequently been the pioneers in originating the supplies now used by surgeons and hospitals. Is it not possible that the medical profession and the hospitals by cooperative study may advance their own interests materially, and develop the solution of their problems to their own advantage?

This, of course, does not mean that everything now in use is to be discarded, or that this study will revolutionize present practice. If successfully carried out, however, it will create at least a starting point for standardization and will establish definite requirements and determine certain sound procedures. For instance, by what standards do we now purchase gauze, cotton, and ligatures? How do we know that gauze as now used is the best material for dressing? Perhaps it is, but who has studied the question?

It appears to be regarded as necessary to standardize dressings and sponge "wipes" and let machinery and factory methods supply the finished articles. Hospitals are finding it difficult to keep their training schools adequately filled with desirable candidates for the nursing profession. Their curriculum standards are constantly being raised, and the exacting requirements of the courses now being offered in many institutions, which combine college instruction with practical hospital training, and for which a degree is granted, place the nurse, economically at least, above such jobs as cutting and folding gauze and twisting applicators and cotton "wipes."

It seems proper to refer here to the multiplicity of types of sponges that are demanded by surgeons. We have been given the amazing information that, at a convention held about a year and a half ago, over thirteen hundred types and kinds of these articles were exhibited. A visit to one of our prominent clinics made recently revealed the fact that the surgical staff is perfectly able to do an enormous volume of work with each surgeon using largely what the other one does, and these surgeons are evidently striving to simplify their demands. At another clinic we were told by the surgical supervisor that no two surgeons who worked there would use the same type of sponge or dressing, each insisting upon a peculiar twist or extra layer or a size differing by a few millimeters from the ones used by his colleague. Is this a real need or is it the result of a fetish, an effort to exaggerate individuality?

Renovation or reclamation of gauze is another phase of this research program that seems worth while. Is it an economical procedure, a safe surgical undertaking, and is it desirable esthetically? Where hospitals now reclaim used materials, how carefully have they studied the actual labor and time costs? Do they know what method is best and what degree of sterilization is carried out? We plan to study this subject at Mellon Institute in conjunction with other fellowships already in operation, hoping to devise satisfactory processes if it seems advisable. Other subjects that are to be included in this research are sterilization technique, and labor-saving and time-saving methods.

A cursory examination of the methods now in use to effect what is thought to be sterilization reveals a great variety of standards. One institution boils rubber gloves three minutes and may insist upon thirty minutes for gauze. Another institution boils gloves twenty minutes; another, ten minutes. Which method is correct and why the difference in time as applied to new gauze and gloves that have been used?

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*Read before the Hospital Standardization Conference of the American College of Surgeons, Montreal, October 25-28, 1926.

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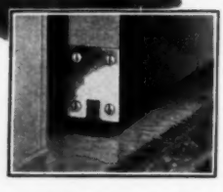
Protection in Cleveland's City Hospital

City Hospital, Cleveland, Ohio. Completely equipped with Chamberlin Weather Strips—287 inside doors equipped with Chamberlin In-Dor-Seals. J. H. MacDowell, Architect, Cleveland, Ohio.



Door slightly opened shows Chamberlin In-Dor-Seal automatically raised to clear rugs, mats or runners.

LIKE many other hospitals, the Cleveland City Hospital is equipped throughout with Chamberlin Weather Strips. No other single building feature will insure patients and personnel the kind of complete comfort that Chamberlin gives by barring draughts and dust at windows and doors. Besides weather strips, however, Chamberlin In-Dor-Seals are particularly desirable in hospitals—they automatically seal under-door cracks so that cold draughts are confined, and barred from circulating from room to corridor and corridor to room. At night it is possible to ventilate rooms and wards without chilling off the entire hospital. A further comfort to patients is that In-Dor-Seals deaden corridor noises. On operating room doors they confine anaesthetic odors—on X-ray room doors they keep out light and dust. In short, Chamberlin Weather Strips contribute to quiet, cleanliness and comfort—and with a manifest saving in heating costs.

Door almost closed shows Chamberlin In-Dor-Seal automatically lowered snugly to the floor sealing the under door crack.

Write today for full information

CHAMBERLIN WEATHER STRIPS
"SINCE 1893-THE STANDARD"

CHAMBERLIN METAL WEATHER STRIP COMPANY
West Lafayette Blvd., Detroit, Michigan
100 Sales and Service Branches throughout the United States

ing firms have found that the study of the efficiency of their workmen is of prime importance. They have systematically charted and recorded the usual motions of the hand, arm and foot. They have determined, by intensive and painstaking observation, what movements and steps are useless. These wasted motions have been eliminated and instructions given to enable the workman to do his tasks most easily and effectively. Lost motion, wasted effort, and duplication of muscular energy are thus avoided. Would a similar study applied to the workers in the hospital prove less valuable?

Research Laboratories in Industry

Almost every industrial plant of importance maintains a research laboratory. The function of this department is not solely to make new technical discoveries or practical advancement, it frequently and usually includes investigations on raw materials. The laboratory checks and determines the grade. It analyzes purchases to determine the values, and is in fact the guardian of the product from the raw material to the finished article. Certainly such laboratory study would be found useful to hospitals. Indeed, no attempt at standardization can go far unless it is realized that the starting point is the establishment of basic and fundamental facts. It would thus seem evident that one must know the detail of the article used, whether it is gauze or catgut. A searching investigation of these apparent details will not be spectacular and the results will probably not be revolutionary, but they will surely prove to have some merit.

Hospitals are in existence for the benefit of mankind. They are institutions of mercy, and the patient is the unit around which the hospital revolves. He is paramount, and his interests must always be of prime consideration. The poor and the rich seem to be well provided for, leaving the burden on the middle-class patient. He is the one who finds it increasingly difficult to share in the benefits of hospitalization. The per diem cost is mounting each year, and if a study constantly carried on will save a little here and there it will have real utility.

In conducting this investigation, the executive staff of Mellon Institute and the writer, the fellowship incumbent, invite your fullest cooperation. We solicit your advice and shall be glad to receive suggestions and constructive criticism. We must call upon hospitals to do some of this work and we ask their forbearance if we call too frequently for information that can be secured only through them. It is the present plan to submit our findings, if feasible, to the representatives of the hospital organizations and to other hospital workers for final criticism and approval. From time to time, various phases of the work will be reported in appropriate periodicals.

NEW TYPE OF SILENT PAGING SYSTEM

Many of the older hospitals and practically all of the new ones have some sort of mechanical method of quickly locating physicians and other hospital officials throughout the building.

There are several types of audible calling systems and numerous devices for silent paging of persons wanted. The most frequently used silent paging system has ordinarily consisted of a series of annunciator boards at strategic places in the building, these boards having numbers on them which it is possible to illuminate individually from some central point. If, as in many large hospitals, there are fifty different persons who are likely to be called,

CRESCENT *Automatic* DISHWASHERS

The Crescent Revolving Wash action is the most efficient known. Mass, force and motion combined.

Exclusively Crescent!

The Crescent does not spray the dishes. It cuts, strips and scrubs away all foods and grease.

Perfect Sterilizing!

Over 19,000 In Use Today-

Crescent leadership is naturally based on the one factor that always awards leadership—Superiority. A few superior Crescent features are:

(1) Greater nozzle concentration of water.

(2) No clogging of nozzles, which are 50 times larger than the average spray hole or slit.

(3) Wider dish rack—a time and labor saver.

(4) A scalding, clean rinse that sterilizes.

(5) Pump outside of wash water, permitting proper lubrication and use of ball bearings.

(6) Revolving wash arms. (The dishes do not move.)

The great number of Crescent installations, in outstanding Hotels, Restaurants, Hospitals, Schools and Bank and Factory Cafeterias, sums up, briefly but eloquently, Crescent's 35 years of leadership in this special field.

Crescent Dishwashers are preferred by those who know beause of their remarkable speed; of their economy of space, water and labor. Also because of their flexibility in connection with Crescent loading platforms, permitting as few or as many men at the scrapping tables as the occasion requires. The capacities of seven Crescent models range from 1,500 to 18,000 dishes an hour.

Write for interesting booklets telling about Crescent Dishwashers and correct dishwashing.

Address Dept. J. 200

CRESCENT *Automatic* Dishwashers

CRESCENT WASHING MACHINE DIVISION of The Hobart Manufacturing Co.

New Rochelle... N. Y.

Canadian Headquarters *173 King Street, East...Toronto.*

REAL ESTATE LOANS

TO THE BORROWER:

Statistics covering building construction throughout the United States in the last few years show conclusively that CHURCHES, SCHOOLS, CONVENTS, HOSPITALS, and all classes of buildings intended for religious purposes, continue to keep abreast of the times in the erection of new buildings.

Recognizing a sound, economic law, those in charge of religious houses are financing the construction of these buildings or refunding existing indebtedness by a first mortgage loan extending over a period of years. In this manner the benefits and responsibilities are shared by the present and future generation and the burden is not found irksome by either.

For more than twenty-seven years the Mercantile Trust Company of St. Louis, Missouri, has made a specialty of financing churches and religious institutions, not only in its home city but in practically every section of the United States. Millions of dollars furnished by it have made possible the erection of scores of institutional buildings throughout the land. Through these years of experience in handling loans of this character we are in a position to give valuable advice and assistance in such transactions.

Correspondence and interviews invited.

TO THE INVESTOR:

Operating on a very extensive scale, with a broad field from which to select our loans, we are enabled to offer at all times, to investors, not only the maximum of service but a class of securities that measure up to the highest standard of safety and desirability.

Complete detail circulars of issues we now offer mailed on request. Purchases of notes made by non-residents filled with the same dispatch as locally. Delivery made at our own risk. Reservations may be made for immediate delivery or delivery within thirty days.

Address all inquiries or orders for Real Estate Notes to

REAL ESTATE LOAN DEPARTMENT

Mercantile Trust Company

Member Federal Reserve System — *Capital & Surplus Ten Million Dollars*

EIGHTH AND LOCUST —TO ST. CHARLES

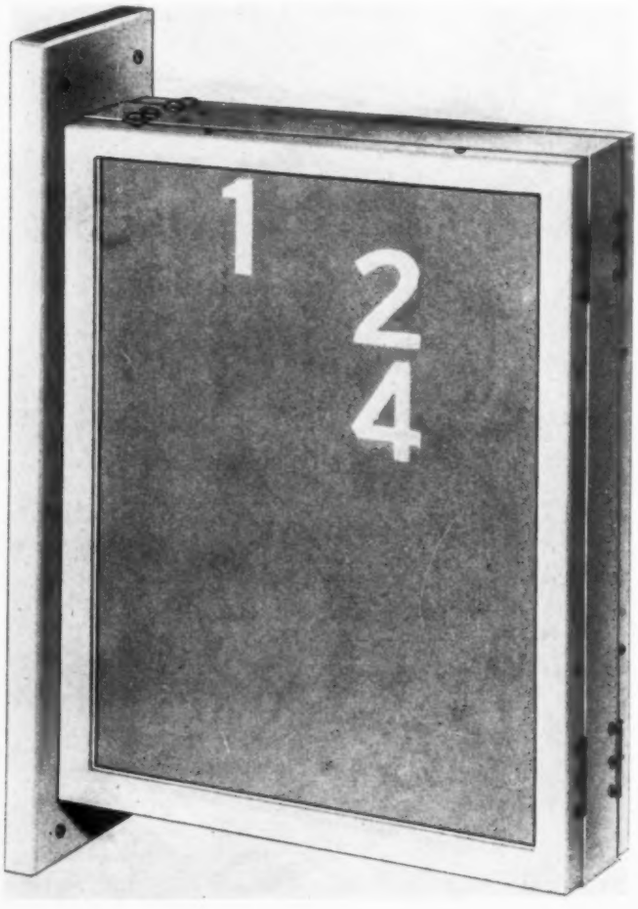
SAINT LOUIS

it is necessary that each annunciator board be large enough to accommodate fifty illuminated numbers. This plan also requires that fifty pairs of wires pass from the central point throughout the calling system.

One of the firms that has long supplied paging equipment to hospitals has developed an intermittent type of annunciator which contains only ten digits, namely, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0. A control board at the central station enables the telephone operator or other person who does the calling to set up any combination of these numbers and flash it through the building. For example, if a given doctor has No. 135, the operator pushes down keys 1, 3, 5 on the central board, and this number is flashed automatically at intervals of about five seconds throughout the building. The central control is so arranged that it is possible to call three different numbers at the same time. For example, doctors No. 135, No. 159, and No. 357 may all be paged simultaneously, the numbers being flashed in quick succession and continuing to flash until the call is turned off at the central station.

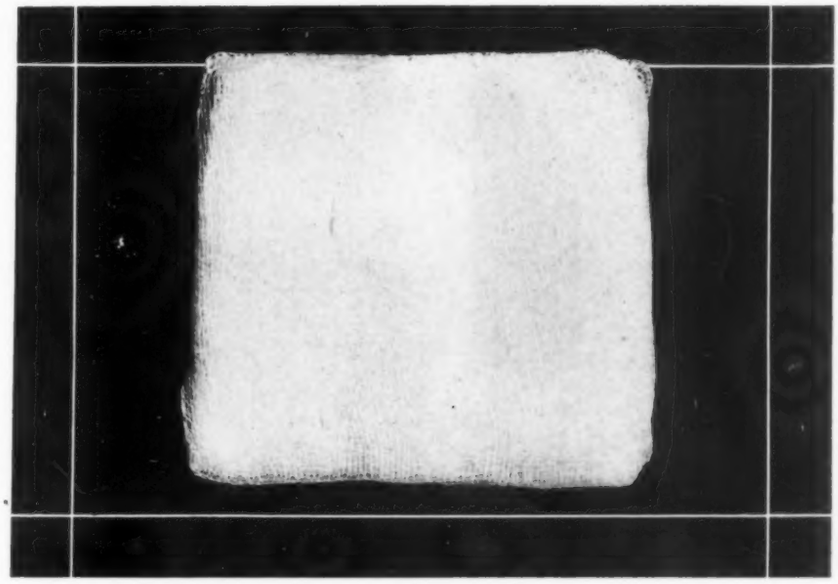
The intermittent flash system has an advantage, in that the flash itself draws the attention much more quickly than a non-flashing illuminated number. If there is an emergency call for one particular person, it is possible to set his number up on all three circuits.

The intermittent flash system requires that only eleven pairs of wires emanate from the central station, greatly reducing the cost of wire, conduit, and wiring labor. It is further possible to attach a small buzzer to each annunciator board which the operator may turn on at will, thus making the signal audible when an emergency call is being registered. The latter feature, while ingenious, has not proved particularly necessary, as the paging system is successful in securing a quick response to calls.



It is your duty

to know these facts about ZOBEC SPONGES



THE ZOBEC SPONGE
(Photographic reduction about 50%) Actual size, 4 in. x 4 in.

This is a fact

No single hospital specialty in years has aroused such keen interest. Think of it! 300,000 Zobec Sponges sold in the first three weeks—*at a price only slightly above bulk gauze.*

5 reasons why you should use ZOBEC SPONGES

1. Zobec Sponges are more absorbent than plain gauze pads; there's a patented Johnson & Johnson center coating of absorbent cotton.
2. By actual test Zobec Sponges lose less fibre in laundering than plain gauze sponges.
3. These ready-made sponges save gauze waste of hand methods; often can be reclaimed by laundering.
4. Zobec Sponges save nurses' precious time and give precise, machine folding as well.
5. The price is reasonable. Zobecs cost only slightly more than bulk gauze itself.

Zobec Sponges machine-made by the million

Uniform shape, true folds, flat gauze—you get these advantages in Zobec Sponges. They cannot open up; no threads become loose; no uneven folds.

Johnson & Johnson

NEW BRUNSWICK N. J., U. S. A.

Send for FREE carton of Sponges

We will gladly send you a free carton of 25 Zobec Sponges. A letter now will insure your getting one of the first lot packages. Write today. The carton will be sent you by return mail.

For complete index of advertisements refer to the Classified Directory

Dozens of different ways to use it for convalescents

APRICOT PUREE

2 cups cooked Cream of Wheat
½ cup apricot puree
½ cup sugar
Salt

Press apricots through a coarse sieve, add sugar, salt and cooked Cream of Wheat. Line a mold with apricots and pour in Cream of Wheat mixture. Serve with cream.

In Cream of Wheat you find one of those rare foods that lend themselves to all around use. With cooked Cream of Wheat as a base, you can give your menus a delightfully fresh variety.

For instance, you can serve it as a cereal of which your patients never tire because you can vary it in so many ways—with dates, prunes, raisins, fresh or stewed fruit, brown sugar, poached egg.

Cream of Wheat blends deliciously with other foods to make a variety of dishes—meat, vegetable or cheese dishes. And the daintiest, most tempting desserts! The one given above is typical.

Every patient can eat it in some form. Physicians use it as a standard food for babies and convalescents. They advise it for its high carbohydrate value and its easy digestibility.

There are 40 generous servings in a box—at a cost of less than 1c a serving. And you have no loss from spoilage for Cream of Wheat is protected in packaging as is no other cereal on the market.

We have a book of 50 splendid recipes which will give you suggestions for varying your menus. We will gladly send it free.

FOR 30 YEARS A STANDARD FOOD ON PHYSICIANS' DIET LISTS

Cream of Wheat

Cream of Wheat Company, Minneapolis, Minn.
In Canada, made by Cream of Wheat Company, Winnipeg

© 1927, C. of W. Co.

PANEL BOARD FOR LAUNDRY

A new panel board for use in the hospital laundry has been designed. By the use of this panel board in place of other drives the waste of power in the starting and reversing of the washers is eliminated and a saving is effected. It is estimated that it takes four times as much power to start or reverse a machine as it does to drive it. For hospital laundries the following use of the panel board is advised:

A panel section of the size shown in the accompanying

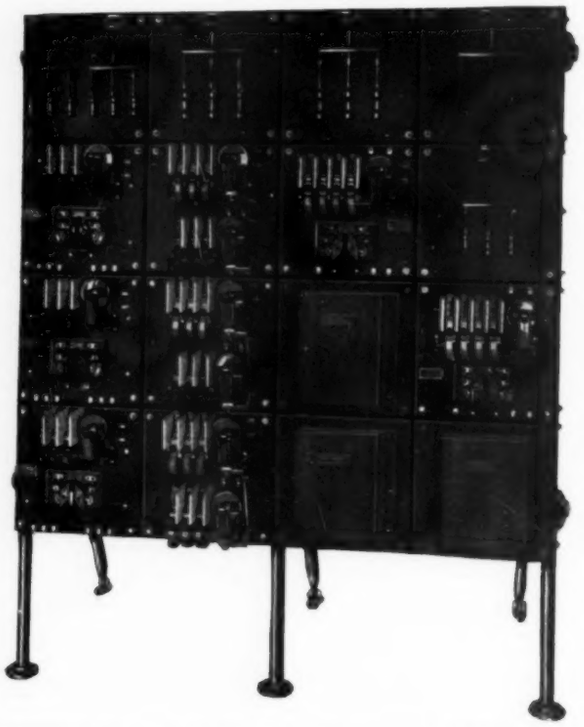


illustration is used to control two reversing washers, one reversing tumbler, including the fan, and one extractor. The reverse control for one washer or tumbler consists of three magnetic contractors, one thermal relay for overload protection, a set of resistors that are mounted on the back of the board and are used for starting the motor gradually, and a fused line switch for each machine.

For each washer or tumbler is furnished a magnetic timer to regulate the cylinder reversals. One timer is mounted in each of the rectangular cases. No motor is required to drive this timer and it has very few working parts. It is claimed that it takes much less current to operate than the motor driven timers and is in use only when the washer or tumbler is running.

AN ALUMINUM CHUTE DESIGNED TO PROTECT LAUNDRY

A manufacturer of laundry chutes has produced an aluminum chute for hospitals, hotels and dwellings. The chute is made of one-sixteenth inch aluminum rolled into cylinders and fastened longitudinally with aluminum rivets, so that the rivets are countersunk. The sections are flanged at the ends and joined by aluminum bolts and gaskets so as to prevent leakage.

The doors for depositing linen on the service floors are made of one-eighth inch solid plate aluminum and are slightly concave. The bottom elbow is of standard glass enamel.

Everybody likes this fine old ginger ale

THE minute you taste "Canada Dry" you will know that it is absolutely different from every other ginger ale. Its delicate, mellow flavor is due to the care with which it is made and the purity and quality of its ingredients.

There is perhaps no better tribute to its universal appeal than the oft-repeated remark, **"I never really liked ginger ale until I tried Canada Dry."**

For this reason, "Canada Dry" is an especially good choice when the case management calls for a carbonated beverage.

You will usually find the patient more cheerful and receptive when you recommend this fine old ginger ale.

"CANADA DRY"

Reg. U. S. Pat. Off.

The Champagne of Ginger Ales

Look for the name on the bottle cap to be sure of the original.

Extract imported from Canada and bottled in the U. S. A. by Canada Dry Ginger Ale, Incorporated, 25 W. 43rd Street, New York. In Canada, J. J. McLaughlin Limited, Toronto and Edmonton. Established 1890.

© 1927

Junket
in Dietetics

"To realize the importance of Junket as an ideal health food it is but necessary to consider its constituents.

"The different, delightful foods called junket are made by combining Junket—in tablet or powder form—with sugar and milk, and when desired, a dainty flavoring. Analysis of the food value of junket, therefore, shows that it contains exactly the same food elements as an equal quantity of sweetened, flavored milk.

"When Junket is added to milk, however, the casein undergoes the first step necessary for digestion. Because of this, milk is more readily assimilated by the human system when it has the addition of the Junket principle."

You will find very practical help in the authoritative new booklet from which the above few sentences are quoted—"Junket in Dietetics," by Helen Clarke, M. S., Director of Dietetics, The Clifton Springs Sanitarium and Clinic.

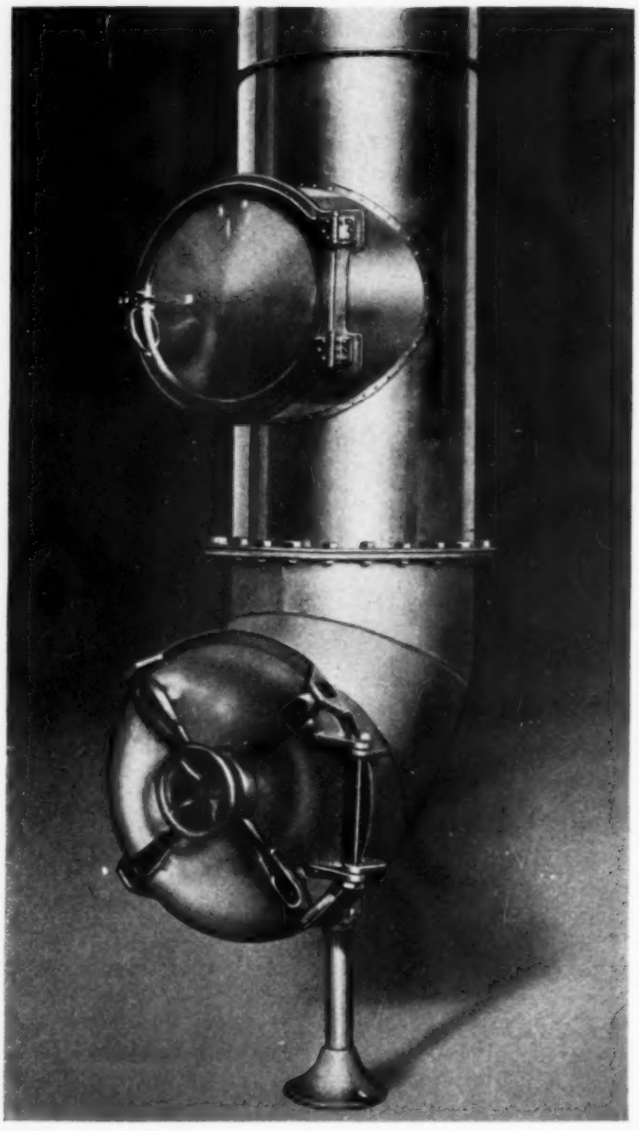
You will also thoroughly appreciate the specific directions given for preparation and use of Junket, in infant feeding and various types of therapeutic diets, including information of such universal interest as proper corrective diet for obesity cases.

Send for your FREE copy, "Junket in Dietetics" now. Write to Dept. 72.

The Junket Folks

Chr. Hansen's Laboratory, Inc.

Little Falls, New York



The chute has an inside diameter of twenty-four inches, although a thirty-inch size may be had, if desired. The style of construction is designed to offset jolts which result when linen is dropped several floors.

A CLOTHES CONTAINER THAT PROVES PRACTICAL AND SANITARY

A new patients' clothes container has been placed on the market and offers a solution of the ever recurring problem of how to dispose of the patients' clothes.

The container is made of heavy, brown, durable material. It measures 54 inches high, 18 inches deep and 8 inches wide, and is provided with rustproof snaps to keep it closed. It will accommodate all the necessary belongings of the patient, is dustproof and takes up little space.

The clothes are hung on regular hangers and then suspended from the metal support inside the container. The bottom frame provides a place for hats, shoes or other articles. A loop for an identification tag is provided over the opening. The top and bottom frames can be removed and the container laundered or sterilized in the regular manner. This container provides a simple and sanitary method of keeping all the patient's wardrobe under one cover, and prevents the clothes from wrinkling.

GIANT MIXERS

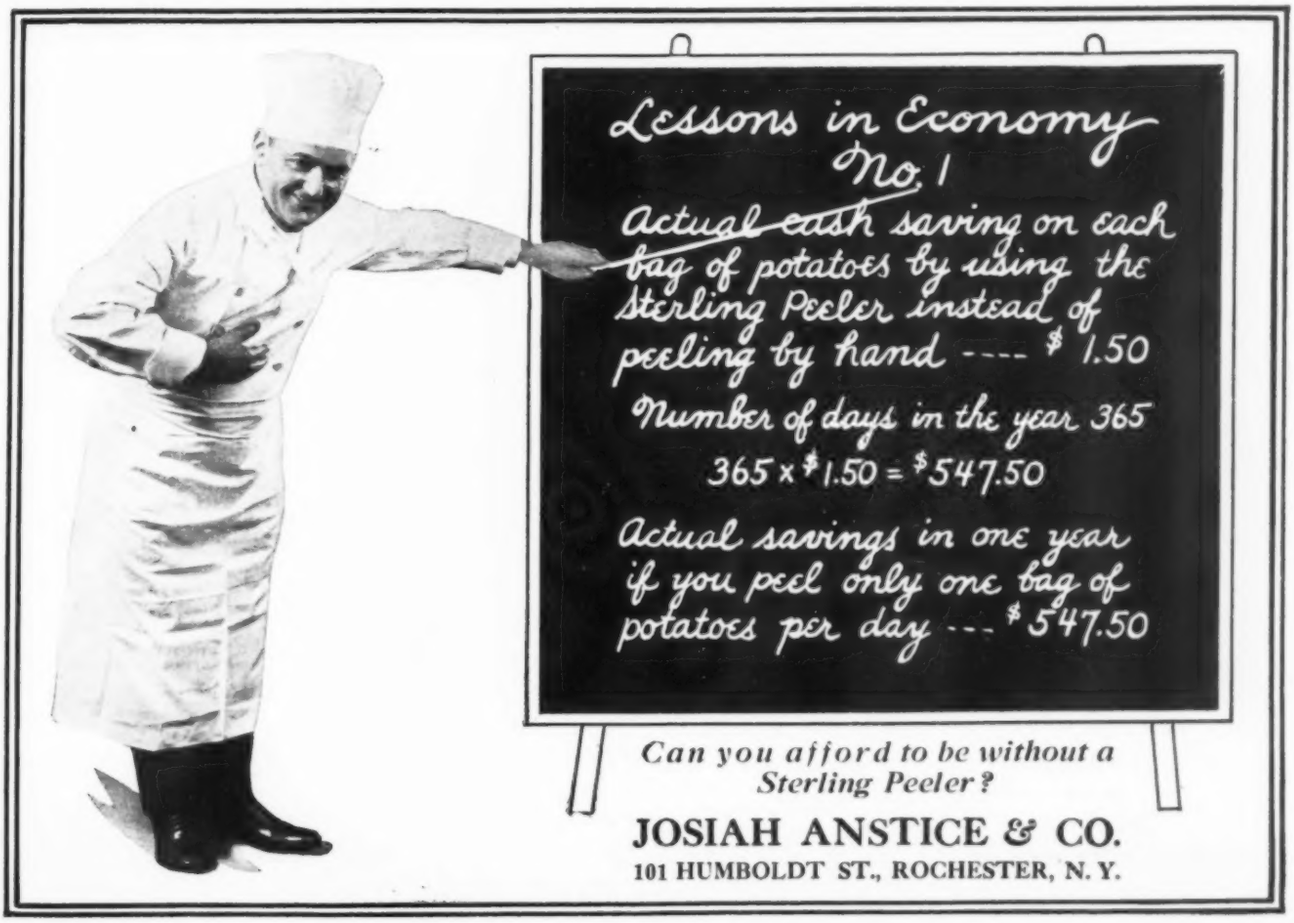
Now made to suit any size hospital

With the Giant you can mix anything from a few egg whites, which call for mixing at high speed, to a bowl full of heavy dough demanding steady mixing at low speed. The Giant will whip potatoes a fine fluffy white, make purees, apple sauce, slice any thickness of fruit or vegetable, crumb bread, rub up cheese, grind meat, grind coffee and spices, and grinder is adjustable to any degree, fine or coarse, while running. Mix cake or bread doughs. The Giant, made in several sizes, is the one money saving kitchen machine for use in hospitals.

Write for price and literature giving complete details.

THE CENTURY MACHINE CO.

4426 Marburg Ave., Oakley, Cincinnati, Ohio

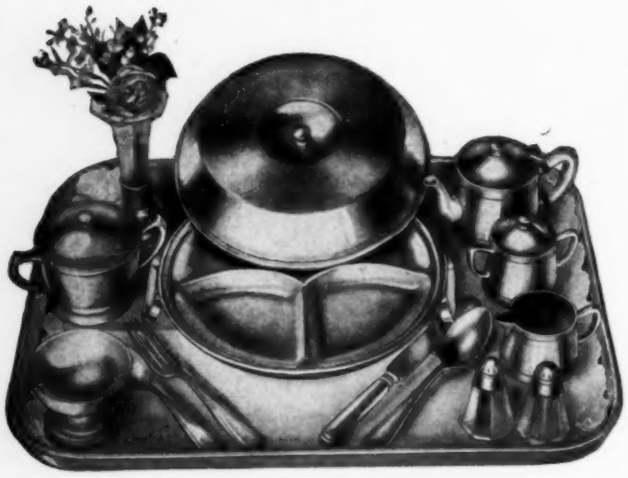

Lessons in Economy
No. 1
Actual cash saving on each bag of potatoes by using the Sterling Peeler instead of peeling by hand ---- $1.50
Number of days in the year 365
365 x $1.50 = $547.50
Actual savings in one year if you peel only one bag of potatoes per day --- $547.50

Can you afford to be without a Sterling Peeler?

JOSIAH ANSTICE & CO.

101 HUMBOLDT ST., ROCHESTER, N. Y.

THORNER'S
Silver Service



Thorner's Silver Service is made of 18% Nickel Silver with a quadruple silver plate. Wears a lifetime. Replacement through breakage is forever eliminated. It is never affected by wear or polishing.

Illustration features Thorner's Improved Three Compartment Hot Water Plate. Tea Set with reinforced bands, hard metal hinges, Silver Soldered and one-piece unleakable bottom. Covered Soup Cup with Silver Soldered handles. Sherbet Dish, Individual Bud Vase, Salt and Pepper Shakers, and Superior Grade Sectional Plate Flatware.

THORNER BROTHERS

Importers and Manufacturers of Hospital and Surgical Supplies

386-390 Second Avenue

NEW YORK CITY

COMPLETE CABINET FOR NOSE AND THROAT WORK

A completely equipped cabinet for nose and throat work has recently been designed. The cabinet is entirely of steel, is 34 inches high, 26 inches wide and 15 inches deep. The top is metal 12 inches deep and is hinged at the rear, so that it can be raised and access easily gained to the top compartment. The top is lifted by means of a bakelite handle, which extends across the front of the cabinet. The handle also facilitates the movement of the cabinet on its ball bearing hospital casters.

It contains eight drawers each 13 inches long. The two top ones are 11 inches wide and 2 inches deep. The six side drawers are 6 inches wide. The door of the pump compartment has a beveled plate glass panel.

The top of the cabinet contains a cotton applicator, gauze, tongue depressor jars and other such equipment. The two cylinder pressure pumps consist of a 4-cylinder driven by a one-eighth horsepower universal motor and a 2-cylinder suction pump driven by a one-twentieth horsepower universal motor.

The center panel contains the controls for the diagnostic lamp and transilluminator. At the right are the master switch, irrigator bottle, sterilizer, politzerization chamber, irrigating tube, control and trocar, ear vibrator and spray set. On the left are found the sinus cleanser, wash bottle, water heater, cotton holder and bottle set, waste receptacle and suction tube with cannula.

IMPROVED BEDPAN WASHER AND STERILIZER

A new principle in washing and sterilizing bedpans is embodied in the new apparatus recently developed by a manufacturer. Among the advantages of the new washer is that of effecting thorough cleansing and sterilization of pans without a waste of time and effort of the attendants.

With this new apparatus, the washing is accomplished not by one stream directed into the center of the pan, but by several jets forcing water under pressure, against the inside of the pan from different angles. In this way the under lips of the pan are thoroughly cleansed.

The arms of the rack which support the pan are hollow tubes and it is through them that the water is forced. These same tubes also direct live steam at forty pounds pressure right against the walls of the pan itself, thus accomplishing full sterilization after the pan has been cleaned.

Other features of the apparatus include the automatic wetting of the inside walls of the sterilizer. This is done when the cover is raised, without any attention on the part of the operator. A water seal to prevent the escape of odors is also filled at the same time.

The apparatus is equipped with a large flush valve which deluges the pan and the inside of the sterilizer with ten gallons of water every cleansing.

No hospital is really complete which lacks a photographic section

Photography is the only method of recording many types of clinical and operative experiences unambiguous to all. And to make good pictures is so simple with the Eastman Clinical Camera Outfit that every hospital should be equipped to do this work.

Photographic records actually save time and money. The outfit costs but $180 and will pay dividends for years. It is a real investment.

Ask an Eastman Demonstrator
to explain clinical uses of photography

Eastman Kodak Company

Medical Division Rochester, N. Y.

TEST THEM
before you buy them
—at our expense

NO HOSPITAL in these days of modern business ever makes an important purchase without doing everything *beforehand* to make certain that their purchases will prove profitable.

Sheets, for example, are bought on severe tests—for strength, washing, durability—for every known strain to which they will be subjected.

Lady Pepperell sheets are being tested daily by an increasingly large number of hospitals. And daily they come out of these tests smiling at their victories.

Tell us when you are going to make your tests. We will gladly send you a fresh Lady Pepperell sheet of any size you specify. It will cost you nothing.

Pepperell Manufacturing Company, Biddeford, Me., and Opelika, Ala
BLISS, FABYAN & CO., *Selling Agents*, New York, Boston and Chicago

Lady
PEPPERELL
SHEETS and PILLOW CASES

Book Reviews and Current Hospital Literature

A SOUND ECONOMIC BASIS FOR SCHOOLS OF NURSING

By MARY ADELAIDE NUTTING, R.N., M.A., Principal and Superintendent of Nurses, Johns Hopkins Hospital School of Nursing, 1894-1907; Professor of Nursing and Health, Teachers' College, Columbia University, 1907-1925.*

As Miss Nutting explains in her preface, the book is composed of articles written between the years 1901-1923, published in various magazines and now gathered together by her at the request of former students. Most of the articles were first delivered before nursing audiences, the others being presented to such groups as hospital representatives, members of the medical profession and organizations interested in studying health problems—both national and international in scope.

Each article is written with a completeness that leaves nothing unsaid, with a vitality that transfers some of the force of the writer to those who read. Always there is evidence of study and thought and that her best has been given on each occasion. Once she quotes President Wilson's statement of the use he makes of others' minds and taking him as an example says: "I have used all the brains I have and borrowed all I could lay hold of in the endeavor to say something worth your hearing."

There is no subject affecting nursing and schools of nursing that is left untouched; hourly and group nursing; endowments for schools of nursing; teaching the student nurse by conferences and at the bedside; uniformity of curriculum; qualified teachers; and always improved preparation of the nurse for better service.

While presenting the past, giving a vivid picture of thirty years in nursing effort, the book is essentially not of the past, but a stimulating active force, not only for nurse workers of the present but for those who will carry on in the far future. In reading it, one is impressed with Miss Nutting's belief in her profession, with her courage, with her hopefulness, with her confidence that the nurse will see "the vision splendid."

Those "former students" who prevailed upon Miss Nutting to make this latest contribution did a worthwhile thing for the profession. They have also given the opportunity to all who read to realize anew the strength of a leader followed these past many years and to appreciate again the privilege nurses have of claiming Miss Nutting as one of their very own.—M. H. M.

*G. P. Putnam's Sons, New York, 1926.

BOOKS RECEIVED

DISEASES OF WOMEN. By Harry Sturgeon Crossen, M.D., F.A.C.S., Professor of Clinical Gynecology, Washington University Medical School, Gynecologist in Chief to Barnes Hospital and Washington University Dispensary, St. Louis. Sixth Edition, revised and enlarged, with 934 illustrations. C. V. Mosby Company, St. Louis, 1926. Price $11.

A new purchase plan
to help hospitals save money

MOST HOSPITALS have learned, either through their own experience or that of others, that the use of substitutes for "Lysol" Disinfectant frequently leads to serious complications which may reflect on the efficiency of the staff and even endanger the patient.

Not all hospitals realize that, even in the past, these crude substitutes effected only a negligible saving—about 75 cents per bed *per year*.

Now we have devised a new purchase plan for hospitals which we believe every hospital superintendent or buying agent should know about.

It brings the price of "Lysol" Disinfectant so close to the cost of its substitutes and imitations that there can be no sound reason for jeopardizing any hospital's reputation through the use of an inferior disinfectant.

Just mail the coupon below and the details of this new plan will be immediately sent to you.

Made by LYSOL, INCORPORATED
A division of Lehn & Fink Products Co.,
Bloomfield, N. J.

Lysol
Disinfectant
REG U S PAT OFF

LEHN & FINK, INC., *Sole Distributors*
Dept. H. 2, Bloomfield, N. J.
Send us your NEW offer for supplying "Lysol" Disinfectant.

Name of Hospital .....
Street .....
City ..... State .....
Name of Buyer .....
No. of beds ..... Title .....

For complete Index of advertisements refer to the Classified Directory

In every room · · · every corridor · ·

the lasting clean beauty of Barreled Sunlight, replacing both paint and enamel

WHEREVER sanitary cleanliness and cheerful light are essential, Barreled Sunlight Gloss finish is a standard. Its satin-smooth surface resists dirt and washes like tile. In beauty it rivals the finest enamel—at a lower cost.

In its Flat finish Barreled Sunlight produces a surface extremely uniform and handsome.

Barreled Sunlight Semi-Gloss strikes a happy balance between the two.

Barreled Sunlight is *guaranteed to remain white longest*. Where tints are desired, it is easy to tint with oil colors.

Sold in drums and cans. For priming, use Barreled Sunlight Undercoat.

U. S. GUTTA PERCHA PAINT CO.
30 Dudley Street, Providence, R. I.
Branches: New York—Chicago—San Francisco
Distributors in all principal cities

Barreled Sunlight
Reg. U. S. Pat. Off.

U. S. GUTTA PERCHA PAINT CO.
30 Dudley Street, Providence, R. I.
Please send us your booklet "Interiors of Lasting Whiteness", and a panel painted with Barreled Sunlight.

Name.....
Street.....
City.....State.....

NEWS OF THE HOSPITALS

California

A new maternity building has been added to the Children's Hospital, San Francisco. It is a four-story building containing sixty beds, consisting of private rooms, wards and a nursery.

Secretary of the Treasury Mellon has announced his approval of a plan to appropriate sufficient funds for the erection of a new marine hospital in San Francisco to replace the hospital erected there in 1874. Estimates for the requirements for the new hospital vary from $2,000,000 to $4,000,000.

The Dameron Hospital Corporation is constructing the first unit of a new hospital for Stockton for which the corporation recently acquired property. The first unit will comprise a three-story twenty-four-bed building with nurses' home and a new mechanical plant.

The dedication exercises of the new $3,500,000 Alameda County Hospital were pictured in the news on the screens of the motion picture theaters of Oakland.

Connecticut

A $95,000 addition to the Hillside Home and $105,000 for an addition to the Englewood Isolation Hospital, Bridgeport, are contained in the five year improvement program recently made public by the city of Bridgeport.

Minden Sanitarium, Minden, was formally opened recently.

District of Columbia

A mess and kitchen building and a recreation building are in the process of construction at Walter Reed General Hospital, Washington, D. C., from the funds provided by the U. S. Veterans' Bureau. Under a special appropriation of $2,000,000 two large wings are to be added to the main building and clinical laboratories and ward buildings.

A $1,000,000 appropriation has been made available for the District of Columbia, for the erection of new buildings for the Gallinger Hospital, Washington. Plans are being prepared by Albert L. Harris, municipal architect and have been approved by Dr. S. S. Goldwater, adviser. The program includes a main building with ward facilities, an out-patient department, temporary administrative offices for the hospital, an assembly room, x-ray department, delivery rooms and surgical amphitheatre. A separate kitchen building is included in the program.

Florida

The Palm Beach County Children's Hospital, Palm Beach, was recently opened.

Georgia

The cornerstone of the Charity Hospital, Savannah, was recently laid. When completed the hospital will have accommodations for 125 patients.

CONGRESSMAN MURPHY

Chairman Hospital Campaign, Steubenville, Ohio, writes as follows:

November 22, 1926.

"Ward, Wells, Dreshman and Gates,
475 Fifth Avenue,
New York City.

Gentlemen:

The campaign of the Ohio Valley Hospital has been a tremendous success. Each of the three previous campaigns for the hospital secured only from 45% to 75% of the money sought. Our present campaign which closed tonight was for an objective of $150,000. The amount subscribed at tonight's meeting was $198,212 in approximately 15,307 subscriptions, with more to come.

Credit for the success is largely due to A. C. Olson of your Firm because of his ability, enthusiasm and tireless efforts in directing the organization, publicity and meetings of the campaign. Credit is also due to his assistant, Mr. K. A. Adams.

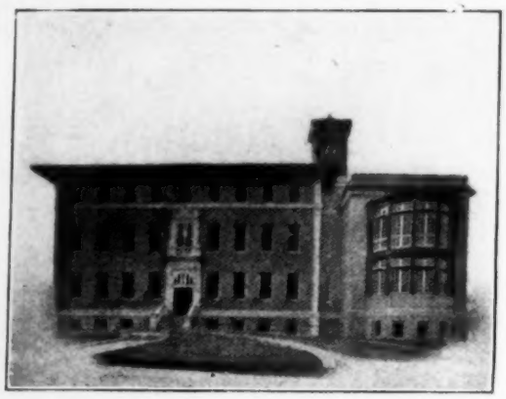
Very cordially yours,
Frank Murphy,
Campaign Chairman."

We shall be glad to confer with you concerning your Financial Problems. A conference costs you nothing.

Our Quarterly Bulletin "Financing Social Progress" gives further details and will be sent upon request.

WARD, WELLS, DRESHMAN & GATES
PHILANTHROPIC ORGANIZATION AND FINANCE
475 FIFTH AVENUE, NEW YORK 612 WRIGLEY BUILDING, CHICAGO
Originators of the Intensive Method of Fund Raising

For complete index of advertisements refer to the Classified Directory



St. Joseph's Hospital, Far Rockaway, Long Island, N. Y.

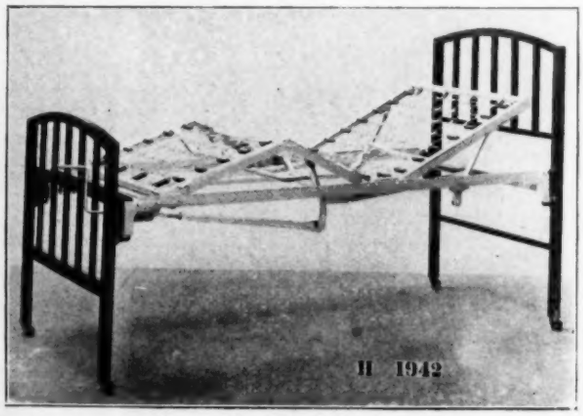
LONG ISLAND

Throughout this one hundred mile strip of land on the Atlantic Coast, you will find many hospitals using Hall beds. These users include the small and the large, the public and the private, the children's and the adults' hospital. What more can one say for the products of Frank A. Hall & Sons?

Hall
Established 1828

Here are the Long Island hospitals using Hall beds:

Bay Shore—Dr. King's Private Hospital
Bay Shore—South Side Hospital
Central Islip—State Hospital
East Hampton—East Hampton Emergency Hospital
Far Rockaway—St. Joseph's Hospital
Flushing—Flushing Hospital
Hicksville—Nassau County Sanatorium
Holtsville—Suffolk County Sanatorium
Huntington—Huntington Hospital
Jamaica—St. Mary's Hospital.
Long Island City—St. John's Hospital
Long Island City—St. Joseph's Hospital
Mineola—Nassau Hospital
Rockaway Beach—Neponsit Hospital
Rockaway Beach—Rockaway Beach Hospital
Sea Cliff—Country Home for Convalescent Babies



FRANK A. HALL & SONS
NEW YORK CITY

OFFICES:
118-122 BAXTER ST.

SALESROOM:
25 W. 45TH ST.

Illinois

Grant Hospital, Chicago, is planning a 130-bed addition, costing $600,000. Schmidt, Garden & Erikson, Chicago, are the architects.

The United Lithuanian Charity Hospital Association is planning eventually the erection of a 600-bed hospital, costing nearly $1,500,000, on the block bounded by Sixty-eighth and Sixty-ninth streets, at California and Washtenaw avenues, Chicago. The first unit will provide 200 beds costing $700,000. M. E. Zaldokas is the architect.

The Missionary Sisters, Servants of the Holy Ghost, Chicago, have purchased eighteen acres at the southwest corner of Winnetka avenue and Wagner road for the purpose of erecting a large hospital there during the year.

The third unit of the Norwegian American Hospital, Chicago, was dedicated January 9.

Indiana

The sum of $75,000 has been willed by the late Mrs. Sarah Bixler, Warsaw, for the construction of a general hospital for the town.

Iowa

Mercy Hospital, Council Bluffs, is to have an addition that will be erected at a cost of $150,000.

Louisiana

The board of directors of the Charity Hospital, New Orleans, has announced its intention of building a $175,000 interns' home opposite the hospital.

Missouri

St. Luke's Hospital, St. Louis, has just completed the addition of the clinic pavilion, the gift of Edward Mallinckrodt, president of the board of managers. The pavilion contains rooms for out-patient work, the social service section, occupational therapy shop and clinic rooms for medical, surgical, eye, ear and throat conditions. Furnishings were provided by gifts from Mrs. Newton Wilson and the late Mrs. Fannie Carr.

The City Hospital, Coshocton, has received $10,000 from the late George M. Burns, St. Louis, for the maintenance of a free ward.

New York

The Methodist Episcopal Hospital, Brooklyn, is planning to launch a drive for $1,000,000 to provide an extension to the nurses' home and a new building to house the pathological, x-ray and children's work.

The Jewish Hospital, Brooklyn, is to enlarge its quarters by two ten-story buildings, one to cost $2,500,000 and the other $2,200,000. One is to house the main hospital and the other the home and training school for nurses.

Part of the estate of the late Dr. Robert Grigg Reese, New York, has been bequeathed to the New York Eye and Ear Infirmary for the purpose of erecting a glaucoma pavilion to be known as the Reese Pavilion.

A $50,000 trust fund has been left to the Niagara Falls Memorial Hospital, Niagara Falls, through the will of Mrs. Elizabeth Clark Rogers.

A tablet has been erected in the Greenpoint Hospital, Brooklyn, in memory of the late Dr. Raymond G. Laub who was superintendent of the hospital from 1918-1926.

The new wing of the Unity Hospital, Brooklyn, was dedicated during the latter part of December. The building has five stories and contains facilities for nursing education and other special departments.

RATES WITHIN REACH

***"Help for the patient of modern means** appears to be one of the most outstanding problems for 1927, judging from the place that this problem has been assigned by several leading superintendents and directors of hospitals to the problem of middle class patients. As will be noted a majority places this problem first."*

—MODERN HOSPITAL for January.

MARY FRANCES KERN

DR. R. G. BRODRICK, Director of Hospitals, Alameda County Hospital, San Leandro, California, Asa S. Bacon, Superintendent of Presbyterian Hospital, Frank E. Chapman, Director, Mt. Sinai Hospital, Cleveland, and other authorities of equal standing are similarly quoted in the last number of MODERN HOSPITAL in an equally emphatic way.

The observation is not new but expresses a condition which exists in practically every community of this country. Health cannot yet be bought with gold to any great extent but the man of wealth *can command* all of the assistance in the battle against physical afflictions which medical and nursing science and modern equipment can offer to him who has. The doors of the most luxurious hospitals open wide to receive him and flowers bloom at his bedside.

The poor man too has a chance. It is a splendid commentary upon modern civilization with all of its imperfections that the needy sick are not denied the sheltering service of hospitals anywhere. There are houses of healing and the tender care that goes with them for the poor and unfortunate.

In the wide contacts of the Kern organization with hospital incidental to fund-raising projects, many institutions are encountered in which the admissions are largely for charity cases. In some institutions *more than half* of the resources and service are actually for charity patients. Fund-raising campaigns, endowments and sacrificial service of Godly sisterhoods make such things possible.

Between the extremes of the very rich and the very poor, however, there is another strata of society which does not fare so well in relation to hospitals, the great middle class which is often termed the backbone of the Nation, made up of self-respecting people whose pride would not let them accept charity and to whom confinement in a hospital is an economic disaster.

It should be a fundamental tenet in every program of Hospital progress that Rates *within* Reach must be provided for the substantial everyday pay-as-you-go citizen who will not put himself in the pauper class and who cannot enter the ranks of the rich and financially unconcerned.

For some fortunate hospitals the problem may be solved by substantial bequests and memorials. Ordinarily, however, an endowment which will help carry the hospital overhead and make possible Rates within Reach for the average citizen can only be secured by a properly conducted Fund Raising Campaign. The sensible and significant character of an appeal for such an endowment makes it a popular one with the public.

The Kern organization has successful experience in campaigns of this character. Convincing references can be furnished any interested hospital authority. Write or wire.

Mary Frances Kern

FINANCIAL CAMPAIGNS

49 Wall Street
New York

1340 Congress Hotel
Chicago, Ill.

17 Adelaide St., W.,
Toronto, Canada

We Raise Money for Hospitals

For complete index of advertisements refer to the Classified Directory

HEDRICK, MARTS & LUNDY, INC.

CAMPAIGN DIRECTION SERVICE THAT HAS PRODUCED $203,000,000

THE Members of this corporation, and its associated organizations, have directed campaigns totaling $205,082,449 for philanthropic institutions. They offer to your Hospital Board a service in campaign direction made expert through years of experience in serving organizations devoted to the promotion of the public good.

HEDRICK, MARTS & LUNDY, INC.
Harriman National Bank Building
527 FIFTH AVENUE
NEW YORK, N.Y.

Members of the Joint Board of Campaign Counsel and Planning

WRITE FOR A COPY OF FINANCING PHILANTHROPY

Cleans tile like magic

Nothing before TILITE did such a thorough job on tiled surfaces. Try ordinary cleaning preparations, then use TILITE and you will find that TILITE takes off much that other cleaners do not touch.

Perfectly harmless to use. Simplicity itself. Just sprinkle on a little TILITE, rub moderately with a damp brush and presto! the tile looks like new. See illustration above.

Best way is to demonstrate for yourself. Just send the coupon below for a free sample.

Sterling Products Co., Easton, Pa.

TILITE

Sterling Products Co., Easton, Pa.
Send sample of TILITE for a free demonstration.

Name .....
Address .....

M. H.—2-1-27

A two million dollar drive has been inaugurated in New York, under the auspices of the French Hospital, to erect a twelve-story building containing five private rooms that will be available at $30 a week. The hospital will be organized to meet the demands of middle-class patients who are unable to pay the usual private room rates.

About 200 persons were present at the ceremonies attending the laying of the cornerstone of the $600,000 building for St. Mark's Hospital, New York.

Western Reserve University, Cleveland, has received a gift of $750,000 from the General Education Board to be used in building an institute of pathology for the medical school and its affiliated hospitals. The new building will be erected north of the Babies' and Children's Hospital and will be four stories. All pathologic work for the hospitals will be done in this building.

Oregon

The Doernbecher Memorial Hospital for Children, Portland, has recently been opened. The American Legion of the State of Oregon has provided $26,000 for maintenance of the hospital until appropriations can be secured from the state legislature. The building has a capacity of seventy-five beds.

Pennsylvania

The campaign for the Allentown Hospital, Allentown, to secure $600,000 for enlarged quarters resulted in an oversubscription of $50,000.

St. Francis' Hospital, Pittsburgh, is presenting a series of ten free community clinics on right living, in connection with its free dispensary service.

St. Luke's Hospital, Bethlehem, is undertaking a survey toward the expansion of its facilities, under the direction of Dr. S. S. Goldwater, New York.

The cornerstone of the Delaware County Hospital, Philadelphia, was recently laid, and a campaign for $200,000 with which to equip the institution has been undertaken.

PAN-AMERICAN HOSPITAL URGED FOR NEW YORK

The need for a hospital for the treatment of Latin American people who reside in the city of New York was stressed by Charles A. Jocelyn Holt, special commissioner, Pan-American Commercial Congress, at the closing session of the recent congress in New York.

Tentative plans for a Pan-American medical center include the erection of a hospital for Latin Americans in New York, a clinical laboratory, a library and training school for nurses where Latin American women can be trained and return to their native countries and promote nursing interests.

NOT AN A. H. A. EXHIBITOR

In an announcement in the January MODERN HOSPITAL, page 101, concerning the rubber goods company that is conducting business with hospitals by trading upon the reputation of a nationally known manufacturer, it was erroneously stated that the company occupied exhibiting space at the Atlantic City Convention. This particular company did not exhibit at the convention and is attempting to conduct its business with hospitals mainly through an unethical direct-by-mail method.

5. No need for steam tables or rewarming food with Ideal Conveyors *

Ideals eliminate the need of steam tables and the equipment and expense to keep them up. Ideals operate on the thermal principle. They keep the food hot or cold like a thermal bottle. Electrically heated models need only be attached to ordinary wall or base-board socket. Wide range of selection. Over 600 hospitals (some near you) use Ideals.

The Swartzbaugh Mfg. Co.
Toledo, Ohio

Associate Distributor
The Colson Co.

Branches in Baltimore, Boston, Buffalo, Chicago, Cincinnati, Cleveland, Detroit, Los Angeles, New York, Philadelphia, Pittsburgh.

The Ideal hand carried Conveyor. This small conveyor is specially fitted for carrying food to dispensaries, isolated wards, cottages, nurses' homes and the like.

Holds heat or cold like any Ideal. Several kinds of foods may be carried at one time, depending on arrangement of inserts.

Light. Easily carried long distances. Low priced. Write for the new catalog showing the complete Ideal line.

Ideal
America's Leading Food Conveyor
Found in Foremost Hospitals

1. Ideal Food Conveyors eliminate the "cold food" complaint.
2. Less help is needed for good service with Ideal Conveyors.
3. Better Service — no confusion with Ideal Food Conveyors.
4. Food Waste is cut where Ideal Conveyors are used.
*5. No need for steam tables or rewarming food with Ideal Conveyors.
6. Serve more appetizing, more palatable, and therefore more healthful food.
7. Make possible food service standardization with less equipment.
8. Wide range of models and assembly combinations give "custom built" selection.

CUT a little bigger than seems necessary, made a little longer, with sleeves two inches longer than regular, and using 50 yards of material to the dozen gowns —to the end that you may have a comfortable fitting, long wearing gown. Prices are surprisingly reasonable for a quality product. One of a complete line of hospital garments. Operating gown illustrated is No. F-316-A made from stout Kenwood cloth—sizes 40 to 48. Price $20.50 per dozen. We suggest a trial order.

WILL ROSS, Inc.

Wholesale Hospital Supplies

Milwaukee, Wisconsin

Distributors at wholesale of a complete line of hospital supplies

Trade News and Publications

Homes of Comfort.—Circular No. 604-C of the Crane Company, Chicago, describes in detail the selection and placement of plumbing fixtures to the type of service needed.

Built-in Fire Protection.—*Metal Lath News*, Volume 3, No. 6, published by the Associated Metal Lath Manufacturers, Inc., Chicago, contains a number of interesting articles and pictures of fire tragedies, particularly those of public buildings and tells how these losses could have been avoided by metal lath and plaster fire protection.

Cereal Recipes.—A series of recipes using New Oata, the new cereal product combining oats and whole wheat, manufactured by the Kellogg Company, Battle Creek, Mich., has been received. The thirty-one tested recipes offer a variety of ways for using this product as well as the other bran products.

Mop Truck and Floor Waxers.—Descriptive literature on the new model mop truck for hospitals and the Finnel electric floor scrubbing, waxing and polishing machines has been received from the Finnel System, Inc., Hannibal, Mo., manufacturers of electric scrubbing and polishing machines and scouring powder.

Dumb Waiters and Elevators.—Catalog O describing the Sedgwick hand power dumb waiters and elevators has been received from the Sedgwick Machine Works, New York.

Standard Charts and Records.—Catalogs illustrating the standard charts and record forms, approved by the American College of Surgeons, have been received from the Hospital Standard Publishing Company, Baltimore. Samples are contained of the operative record book, death record, delivery room record and other records in book form. The price list effective September 1, 1926 is contained in the front of the catalogs. Catalog No. 9 contains the standard charts used in the leading hospitals of the United States.

Linen Sheeting.—*The Pepperell Sheet*, Volume 1, No. 7, published in the interests of the Pepperell Manufacturing Company, Boston, has been received together with folders describing the sheeting manufactured by the company and its uses for interior decoration.

Wasting Nurses' Time.—Johnson & Johnson, New Brunswick, N. J., have issued a folder, "Why waste nurses' precious time?" describing their ready prepared sponges and dressings.

Washing Machines.—A folder has been received from Henrici Laundry Machinery Co., Boston, describing its new "450" model all metal washer, having 84 cubic feet capacity and handling 450 pounds of work.

Hospitable Furniture.—Catalogs and folders have been received from Stickley Bros., manufacturers of hospital furniture, Grand Rapids, Mich., describing their furniture for the hospital and home. The fall catalogue of "quaint furniture of character" contains an abundance of color illustrations showing the value of color in the hospital.

Regardless of the form
in which it best meets
your requirements—

—is your gauze giving full value?

IT IS the superior qualities of the gauze itself which determine its value in hospital work and contribute most to its economy. Economical Superintendents realize this, and invariably specify Hygienic Made Gauze. They know this product to be so expertly processed that its soft finish, snow-white bleach and exceptional absorbency provide **extra value** which justifies their specification. The fact that Hygienic Made Gauze can be obtained in the newer forms, as listed below, is an added advantage which reduces the time and expense incidental to its preparation for hospital use, and thus effects further economies.

Let your next gauze order specify Hygienic Made Gauze; then prove its uncharged-for value by your own comparisons.

HYGIENIC MADE
Hospital Gauze
in Flat Folds,
Oval Rolls,
Dressing Rolls,
and
Ready-Cut Sizes

Absorbent Cotton
Gauze, Muslin
and Crinoline
Bandage Rolls
Oiled Muslin
Sanitary Napkins
Physicians' Pads
"HyFax" Cellufibre

HYGIENIC FIBRE COMPANY
INCORPORATED
227 Fulton Street, New York City

These District Sales Offices Render Prompt, Dependable Service

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112 S. 16th St.

CHICAGO, ILL.
217 E. Illinois St.

DETROIT, MICH.
554 Buhl Bldg.

SAN FRANCISCO, CALIF.
760 Mission Street

BUFFALO, N. Y.
208 Bird Avenue

ATLANTA, GA.
139 Forrest Ave., N. E.

DENVER, COLO.
1269 Curtis St.

WORCESTER, MASS.
11 Norwich St.

DALLAS, TEXAS
1206 Camp St.

Prevention wisely follows relief

IT'S one thing to relieve constipation—quite another to prevent its recurrence. ALL-BRAN does both. Eaten regularly, it performs a double service—thereby making for lasting relief.

Only an ALL-BRAN product could do the work of Kellogg's ALL-BRAN. Doctors know they can rely upon it to accomplish definite results, because it is 100% bran. Results a part-bran product could hardly hope to achieve.

When bran is indicated, recommend ALL-BRAN. It's a prescription patients enjoy. Delicious served as a breakfast cereal — or it may be used in many kinds of cooking.

Made by Kellogg in Battle Creek. Sold by all grocers. Served everywhere.

Kellogg's ALL-BRAN

The catalog of colonial furniture contains a historical sketch of the development of American furniture. Two folders make direct appeal to the hospital by showing how it may become a place of beauty and be made more hospitable by the right selection of furniture.

Yarns.—Folders and samples of yarns for knitting, weaving, rug making and other occupational therapy work have been received from the Peace Dale Mills, Peace Dale, R. I. and New York. The folders contain illustrations of finished products in rugs and sweaters and also contain complete price lists.

Cutting Dishwashing Costs.—This is the name of a folder describing Model "A-2" Colt Autosan dishwasher manufactured by Colt's Patent Fire Arms Manufacturing Co., Hartford, Conn.

Mounting Intensifying Screens.—A new method of mounting intensifying screens is described and illustrated in a folder recently sent out by the Patterson Screen Co., Towanda, Pa. Other folders describe the fluoroscopic and cleanable intensifying screens and other specialties.

Nurses' Supplies.—A small catalog describing its nurses' apparel and hospital gowns has come from the E. W. Marvin Company, Troy, N. Y. A folder insert contains the price list of all of the supplies.

Surgical Features.—A number of folders have come from the Kny-Scheerer Corporation of America, New York, describing and illustrating separate instruments and pieces of surgical equipment and hospital furniture.

Treating Pneumonia.—Merck & Co., New York, has issued a booklet "The Treatment of Pneumonia with Numoquin Base," illustrating the use of this product and dosage and directions for administration. Several folders have also been received describing a number of their pharmaceutical products, such as iodipin 40% erythrol tetranitrate and other products. One of the special booklets is devoted to ichthyol and its uses in skin diseases and in minor surgery.

Infra-Red Rays.—A folder explaining infra-red rays, their properties and treatment value along with a description of the treatment lamp has come from the Kny-Scheerer Corporation, New York.

Trolleys and Lifts.—Herbert Morris Inc., makers of chain-hoists, monorails, cranes, etc., Buffalo, N. Y., has distributed folders explaining the advantages of their trolleys, adjustable slings and grabs.

Microtomes.—Microtome No. 815 and other microtomes are described in a booklet issued by the Spencer Lens Company, Buffalo, N. Y.

Dietetic and Laboratory Scales.—Two circulars, No. 1-2 and No. 2-D, have been sent to the surgical supply houses by the Pelouze Manufacturing Company, Chicago, manufacturers of scales and electric heating apparatus and metal specialties. The scales described in the folders are the 230 and 500 gram capacity sizes.

Anniversary Bulletin.—The anniversary number of *The Rising Sun*, monthly publication of the Hillyard Chemical Co., St. Joseph, Mo., traces the development of the company during the past twenty years, showing pictures of its progressive stages. The publication is in form a reproduction of the can of sine-all, non-slippery linoleum preserver, manufactured by the company.

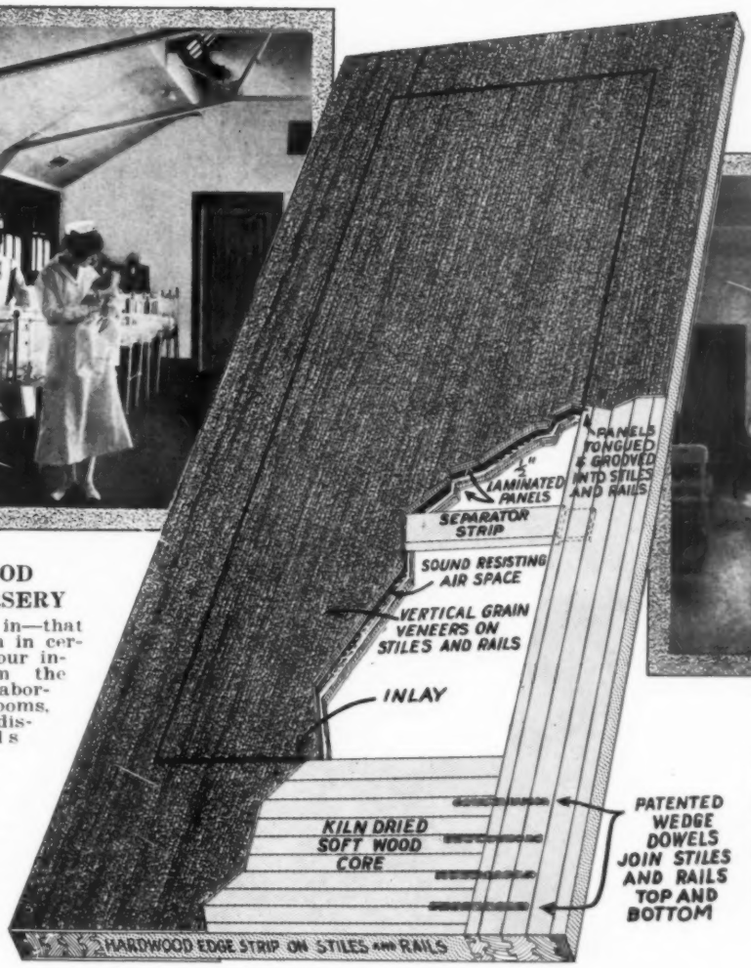
Vitrified Lighting Fixtures.—A pamphlet on vitrified pottery lighting fixtures comes from the Franklin Pottery Co., Lansdale, Pa. Several pages contain models of the various types of brackets.

Vacuum Brush.—A folder describing the OK vacuum brush manufactured by the O. K. Machine Company, Fort Wayne, Ind., has been distributed. The pamphlet explains that the brush cleans clothes, furniture, bedding and au-

Announcing The NEW IMPROVED HOSPITAL DOOR

FLUSHWOOD IN THE NURSERY

Keeping noises in—that is a big problem in certain rooms of your institution. From the nurseries, labor-rooms, service rooms, kitchens, come disturbing sounds which must be checked at their very source for the ease and comfort of your patients. Flushwood is the one effective door-barrier to accomplish this excellent purpose.


1" LAMINATED PANELS
PANELS TONGUED & GROOVED INTO STILES AND RAILS
SEPARATOR STRIP
SOUND RESISTING AIR SPACE
VERTICAL GRAIN VENEERS ON STILES AND RAILS
INLAY
KILN DRIED SOFT WOOD CORE
PATENTED WEDGE DOWELS JOIN STILES AND RAILS TOP AND BOTTOM
HARDWOOD EDGE STRIP ON STILES AND RAILS

Sound Resistant!

FLUSHWOOD IN THE WARD

And keeping noises out—here is an equal problem. The patient must be isolated, corridor noises reduced to a minimum and the great ideal of quietude allowed to reign. Flushwood because of its patented, sound resistant construction offers many exceptional advantages which give it an essential place in every modern institution.

FLUSHWOOD

(PATENTED)

MADE ONLY BY MORGAN COMPANY

THIS remarkable new door is a perfect combination of the best features of the ordinary flush door, and the patented, hollow-panel, sound resistant construction, which is used exclusively in Flushwood—affording one of the greatest door values in history.

FLUSHWOOD FEATURES

Read the following comparative information. Study the cross-sectional view above. You will easily be convinced of the exclusive merits of Flushwood.

(1) **Flushwood is more sound resistant.** The dead air space between panels provides a greater reduction in sound transmission than in the ordinary flush door.

(2) **Flushwood is made in different combinations of woods,** and can be furnished with Stiles and Rails of plain wood and panels of figured woods giving a beautiful contrasting effect. Any desired arrangement of glass openings can be provided.

(3) **A beautiful inlay is furnished in Flushwood** in any kind of wood.

(4) **Flushwood weighs only two-thirds as much as a regular flush door,** making possible a substantial saving in freight, handling, fitting and hanging.

(5) **Flushwood will not warp or twist.** Moisture content is at a minimum. All wood used is kiln-dried. Morgan Patented Wedge Dowel is used thruout, binding the door into a solid rigid unit.

(6) **Finally, the cost of Flushwood is low.** Inlaid two sides it can be purchased for less than an ordinary flush door without inlay.

These many superior advantages mark a new standard in hospital door construction. They should be investigated.

Write nearest office for catalog and full information

MORGAN WOODWORK ORGANIZATION

MORGAN SASH & DOOR CO.
Chicago Detroit Cleveland

MORGAN COMPANY
Oshkosh, Wisc.
New York City

MORGAN MILLWORK CO.
Baltimore Jersey City
Greensboro, N. C.

THE LIGHT THAT NEVER FAILS
EMERGENCY LIGHTING SYSTEM
Roth

What happens when the power goes off?

WITH the Roth Emergency Lighting System nothing happens—lights and any other essential electrical equipment continue without interruption—there is no emergency.

The Roth System is instantaneous and automatic in its operation, and does not rely upon the human element at all. It is automatically maintained in perfect readiness all the time, and when the emergency arises no one but the electrician knows that the regular power has failed.

Capacity can be provided for the operation of as many lights as required, as well as for other necessary electrical equipment.

Send for the complete description, Bulletin No. 900.

Dept. A.

Roth Brothers & Co.
1400 W. Adams Street, Chicago, Illinois

One failure of the power supply costs more than an installation of the Roth Emergency Lighting System.
M H 2—Gray

How much Did You Spend Last month for Dishwashing Compound?

You can cut your dishwishing costs to a surprisingly low figure and have cleaner dishes and brighter silver if you use

LOOSENS DIRT **Soilax** DISSOLVES GREASE

One pound of Soilax will do the work of from 4 to 6 pounds of ordinary cleaning material, and do it better, too.

You can try Soilax on our money-back guarantee plan. Just send the coupon — you're the judge.

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M.H.2

Economics Laboratory, Inc.
2694 University Avenue, St. Paul, Minn.
Gentlemen: Please send us further information about your guaranteed money-back Trial Offer on Soilax. This does not obligate us in any way.

Name .....
Firm .....
Street .....
City ..... State .....

tomobile cushions, carpets and draperies of all sorts. The pamphlet is entitled, "The Brush of a Thousand Uses."

Service Wagons and Trucks.—Jarvis & Jarvis, Palmer, Mass., has issued its catalog No. 2 W describing in detail its noiseless ball-bearing service wagons and trucks for hotels, restaurants, hospitals and industrial plants. A circular has also been received describing the bed service wagon.

Soft Water Saves Money.—A leaflet on the advantages of softening water has been distributed by the Permutit Company, New York. The leaflet describes the experience of the Robert Packer Hospital, Sayre, Pa., in softening its water supply.

The Realms of the X-Ray.—"A Little Journey into the Realms of the X-Ray," is the name of a booklet recently distributed by the Victor X-Ray Corporation of Chicago. The use of the x-ray in medicine, dentistry and in industry is graphically presented.

Aluminum Cooking Utensils.—The Aluminum Cooking Utensil Co., New Kensington, Pa., has mailed a folder describing its "wear-ever" aluminum installations for institutional use.

News About Laundry Machinery.—A leaflet describing the Henrici "450" washer has been received from the Henrici Laundry Machinery Co., Boston, Mass.

Infra-Red Radiation.—The Zoalite method for producing penetrating, sedative heat is described in a folder published by the Burdick Corporation, Milton, Wis. The folder contains information as to the use of the zoalite, or infra-red lamp in the various ways.

X-Ray Accessories.—A booklet and several pamphlets have been received from the Eastman Kodak Company, medical division, Rochester, N. Y., describing x-ray equipment accessories manufactured by the company.

Clinical Excerpts.—A current issue of **Clinical Excerpts** published by the Winthrop Chemical Co., Inc., New York, contains a number of interesting articles among which are those on the abuse of rest in cardiac therapy, and the biochemistry of cancer.

Sheetings, Sheets and Pillow Cases.—The Dwight Manufacturing Co., Chicopee, Mass., is distributing to hospitals interested in sheets that will withstand steam sterilization and laundering a full size sheet with the woven label to show the date the sheet is put into service.

Supplies for Nurses and Hospitals.—A pamphlet describing their nurses' uniforms and garments for employees has been sent out by the E. W. Marvin Company, Troy, N. Y.

Bed for Premature Infants.—Literature describing and illustrating the Morganthaler improved bed for premature and feeble infants has been received from J. A. Deknatel & Son, Inc., Queen's Village, L. I.

Mattress Protection.—Henry L. Kaufmann & Co., Boston, Mass., has issued a booklet "Absolute Mattress Protection," describing the use of the Norinkle rubber sheets for protecting hospital mattresses.

Clinical and Research Reports.—A series of pamphlets containing articles from various medical journals on such subjects as balanced anesthesia, gynergen in obstetrics and felamine has been issued by the H. A. Metz Laboratories, Inc., New York.

Keeping Floors Clean.—The J. B. Ford Company, Wyandotte, Mich., has issued a letter folder describing and illustrating the Wyandotte detergent for cleaning floors, sinks, and linoleums.

Balances and Weights.—A fifteen-page booklet describing their balances and weights has been distributed by E. H. Sargent & Co., Chicago, Ill., dealers in chemicals and chemical apparatus.